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EFFICIENT CAUSALITY *in* ARISTOTLE AND ST. THOMAS

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A DISSERTATION

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By

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PRINCIPAL ABBREVIATIONS

in

REFERENCES TO ARISTOTLE'S WORKS

Anal. Post. II, 2, 89b, 25:—*Analytica Posteriora,* Bk. II, Chapter 2, page 89, right column, line 25.
(N. B. The pagination, column and line number are those found in the Berlin Academy Edition of Aristotle's Works. The Oxford Edition English trans., has followed the same pagination and column numbering. Line numbering is approximately that of the Berlin Academy Edition.)

Phy. II, 3, 194a, 18:—*Physica,* Bk. II, chapter 3, page 194, left column, line 18

De Coel. I, 10, 279b, 7-11:—*De Coelo,* Bk. I, chapter 10, p. 279, right column, lines 7 to 11.

De Gen. et Corr. I, 9, 327a, 2:—*De Generatione et Corruptione,* Bk. I, chap. 9, page 327, left column, line 2.

De Part. Anim. I, 1, 640b, 5:—*De Partibus Animalium,* Bk. I, chap. 1, p. 640, rt. col., line 5.

De Gen. Anim. IV, 4, 770b, 9:—*De Generatione Animalium,* Bk. IV, chap. 4, p. 770, rt. col., line 9.

Met. IV (Δ), 5, 1015a, 21 :—*Metaphysica,* Bk. IV (Delta), chap. 5, p. 1015, left col., line 21.

Eth. Nic. VI, 7, 1141a, 34:—*Ethica Nicomachea,* Bk. VI, chap. 7, p. 1141, left col., line 34.

REFERENCES TO ST. THOMAS'S WORKS

S. T. I, 25, 3c:—*Summa Theologica,* Prima Pars, quaestio 25, articulus 3, corpus (i.e. body of the article).

S. T. II-II, 109, 2, 3m:—*Summa Theologica,* Secunda Pars Secundae Partis, quaestio 109, articulus 2, ad tertium (i.e. response to the third objection).

S. T. III, 34, 4c et 1m:—*Summa Theologica,* Tertia Pars, quaestio 34, articulus 4, body of article and answer to the first objection.

C. G. III, 69, Amplius, Perfectio:—*Contra Gentiles,* Bk. III, chapter 69, paragraph beginning with the words "Amplius, Perfectio".

De Pot. 3, 7c et 7m:—*De Potentia,* question 3, article 7, body of article and response to the 7th objection.

De Mal. 7, 1, 8m:—*De Malo,* question 7, art. 1, resp. to 8th objection.

De Spirit. Creat., un., 3, 15m:—*De Spiritiualibus Creaturis,* quaestio unica, art 3, resp. to the 15th objection.

De Anim., un., 5, 3m:—*De Anima,* quaestio unica, art. 5, resp. to 3rd objection.

De Verit. 24, 1, 19m:—*De Veritate,* question 24, art. 1, resp. to 19th objection.

QQ. DD.:—*Quaestiones Disputatae.* (N. B. Among other works, the *Quaestiones Disputatae* include the five foregoing entries, viz., *De Pontentia, De Malo, De Spiritualibus Creaturis, De Anima* and *De Veritate.)*

Quodl. II, 2, 3c:—*Quaestiones Quodlibetales, Quodlibetum* II, quaes, 2, art. 3, corpus.

In II Sent. 27, 1, 4, 3m:—Commentary of St. Thomas on the *Sentences of Peter Lombard,* Bk. II, distinction 27, question 1, article 4, response to 3rd objection.

In III De Anim. 2, n. 592:—Commentary of St. Thomas on Aristotle's *De Anima,* Bk. III, lectio 2, number 592 (reference is to the Pirotta Edn.) N. B. This is not to be confused with St. Thomas' own *De Anima* of the *Quaestiones Disputatae.*

In I De Interpr. 14, Vivès, XXII, 49 b:—Commentary of St. Thomas Aristotle's *De Interpretatione* (*Peri Hermeneias*), Bk. I, lectio 14, Vivès Edn. Vol. XXII, page 49, right column.

In I Post. Anal. 9, Vivès, XXII, 126a:—Commentary of St. Thomas on Aristotle's *Analytica Posteriora,* Bk. 1, lect. 9, etc.

In VIII Phy. 6, Vivès XXII 642a:—Commentary of St. Thomas on Aristotle's *Physica,* Bk. VIII, lect. 6, etc.

In I De Gen. et Corr. 8, Vivès, XIII, 291b:—Commentary of St. Thomas on Aristotle's *De Generatione et Corruptione,* Bk. I, lect. 8, etc.

In IX Met. 4, n. 1819:—Commentary of St. Thomas on Aristotle's *Metaphysica,* Bk. IX, lect. 4, number 1819 (reference is to Cathala Edn.)

In I De Causis, 20 Vivès, XXVI, 556a:—Commentary of St. Thomas on Proclus' *De Causis,* Liber unica, lect. 20, etc.

Comp. Theol. I, 125, Vivès, XXVII, 49a:—Opusculum 1, Compendium Theologiae Prima Pars, cap. 125, etc.

INTRODUCTION

It has been justly remarked that the vitality of perennial philosophy does not consist in acts of mnemonic devotion to the past, nor in the complacent and comfortable memory of truths already gained, but in forging ahead, applying old truths to the solution of new problems, breasting new frontiers with the advance of the sciences. This is all quite true. Nevertheless there is something to be said for mnemonic devotion, and one who is about to undertake a study that is primarily historical may be expected to state the case.

In the first place it should be observed that no true progress can be made, if the solid foundations of the past are disdained. Without a body of truths already possessed and securely held there would be nothing into which new facts could be assimilated or integrated, nothing by which new problems could be solved. And unless these truths are drawn from the past each succeeding generation would be doomed to start afresh on its search for truth. Philosophic and scientific advancement then requires a devotion to the deposit of truth already gathered by those who have trodden the difficult path before us. The future must be built on the past.

Moreover, the new problems that confront us today are sometimes very old problems As frequently happens however the old answers elude us. This may be due to the fact that the tradition of the timelessly true is not too clear. Contradictions abound. Men who have the reputation of being wise and lovers of wisdom disagree on fundamental issues. Or again, the fault may lie not with the tradition of the true, but with ourselves. It may be that the truth has been completely forgotten or at least imperfectly remembered. There has been neither devotion nor memory in the lessons once learned from the past — no devotion because in the realm of reason there can be true devotion to nothing but truth and unless the truth once gained is jealously guarded our devotion is but an empty glorification of tradition, or an unreasoning apotheosis of one who, we are told, once looked into the face of Truth—no memory, because the truth once learned has been written in "invisible ink" which dries and quickly fades, instead of being carved deeply by reason's whetted dialectic.

At such a time a crisis occurs for the truth that is perennial. New facts arise which call for an explanation. Some, truly false to the past, condemn it unheard or at least condemn its 'hearsay' conclusions without knowing its principles or reasonings. Others, traitorously true, hold themselves aloof from the facts and maintain a disloyal allegiance by glorifying it unknown, or at best known only in its conclusions apart from its reasonings. Both are intellectually dishonest. Both are unfaithful to the avatars of truth, the great teachers of the past. Both sin against docility in the sense of the word in which Mortimer Adler has used it and brilliantly explained it;[1] the former, by defect, in being brashly and impatiently indocile; the latter, by excess, in being subserviently and impetuously docile. What each needs is a careful examination or re-examination (as the case may be) of what the past has to offer. This means that with a passion for truth, a dispassion for personalities, the utterances of the great teachers of the past should be examined in their flow of pristine purity, i.e., as they issued from their living lips and are found in text and context of their writings.

Something of this is attempted by the present thesis for that portion of perennial philosophy which concerns itself with efficient causality in itself and some of its major ramifications. Our teachers are to be Aristotle and St. Thomas Aquinas. It is the writer's act of mnemonic devotion to the past. While the vitality of perennial philosophy does not *consist* in such devotion, morally and practically speaking it must *suppose* it since only with the greatest difficulty can it be kept alive apart from such a memory that is devoted to truth.

It is a personal conviction that such a study is particularly appropriate at this time in view of the importance of the topic and the utter confusion that surrounds it in latter-day philosophy. Of its importance there can be little doubt, however bare of content it would be made by certain modern philosophers and philosophizing scientists. Since philosophy is the science of being in its ultimate causes, one's attitude towards causality and especially efficient causality may in all conservatism be said to signalize the specific character of each philosophical system. Some forty years ago Albert Lang went even further in describing the importance of causality.

---

[1] See "Docility and Authority", *The Commonweal,* Vol. XXXI, n. 24, April 5, 1940. See also "Docility and History" by the same author, *The Commonweal,* Vol. XXXIII, n. 1, April 26, 1940.

> "As a matter of fact", he said, "the specific character of a philosophical system *depends* upon its distinctive or proper conception of the idea of cause. And one can add that *not only the progress of philosophic thought but the progressive development of each science as well depends upon a correct and precise formulation of the causal idea.*"[2]

And stressing the indispensable character of the causal idea for the sciences themselves he goes on to say:

> "From whatever angle one regards the causal problem, whether it be theoretic or historical, the impression one gathers is ever the same and one becomes more and more deeply convinced that . . . *the idea of cause is the life-nerve of science.*"[3]

This is simply to reflect the mind of St. Thomas who, back in the thirteenth century issued warning to the effect that if efficiency of beings is denied then one could never know the nature of anything from its effect and natural sciences in which demonstrations are made, for the most part, *a posteriori, i.e.,* by way of effect, would be impossible.[4]

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[2] *Das Kausalproblem,* 2 vol. Köln: J. P. Bachem, 1904, Vol. I, p. 9: "In der Tat . . . hängt der specifische Charakter eines philosophischen Systems von der eigentümlichen Auffassung des Kausalbegriffes ab, und man kann sagen, dass nicht nur der Fortschritt des philosophischen Denken, sondern ebensosehr die fortschrittliche Entwicklung einer jeden Wissenschaft von einer richtigen und präziseren Formulierung des Kausalbegriffes abhängt."

[3] Ibid. p. 10: "Von welcher Seite man auch das Kausalproblem betrachtet, theoretisch oder historisch, immer ist der Eindruck den man gewinnt, ein und derselbe, immer tiefer bildet sich in uns die Überzeugung aus, das . . . der Kausalbegriff, der Lebensnerv der Wissenschaft ist . . . "

But if efficient causality may be called the life-nerve of science (meaning evidently the purely physical sciences) one can scarcely overestimate its importance and necessity for religion and, let us say, the purely human sciences, such as natural theology, ethics and morality and all subalternate sciences. Empty the causal concept of all content as some have done, and one's proof of the existence of God has the stigma of pure sophism. Understate the extent of divine efficiency, or minimize the reality and the reaches of creature action and one abuts into deism with its distant and indifferent deity or into some form of necessitarianism in either of which one is logically faced with a denial of imputability for human action. These thoughts might be developed at much greater length, but if as they stand they indicate the disastrous result of a denial, misstatement or misunderstanding of efficiency in the sphere of religion and morality, they shall have served their present purpose.

It is quite obvious then that if causality plays so great a role, not only in the progress of philosophical thought but also in the progressive development of the (physical) sciences themselves, if moreover it has an extremely practical bearing upon religion, morality and everyday life, it is singularly important that one's etiological views be solidly grounded in truth. That truth, it is felt, is contained in the tradition which originated with Aristotle and found its mediaeval focus of perfection in St. Thomas, a tradition which has become almost as a lost chord for the past 400 years ever since the cartesian attack on a decadent scholasticism that had lost faith with its intellectual forebears.

In returning to Aristotle and St. Thomas it is extremely desirable that the latter's relation to, and the extent of his reliance upon, his Greek Master be pointed out for there has been much misunderstanding in this regard either in the way of exaggerating his dependence and want of originality or, going to the other extreme, in minimizing the Stagirite's influence and St. Thomas' debt. In regard to the actual relation between the two this much may be said in anticipation. The Angelic Doctor was an able and indeed a most competent commentator of Aristotle. His serene impartiality, his sympathetic understanding, his sobriety of judgment combined with his superior acquaintance with aristotelian texts to qualify him for this work, much more than is true of him who has gone down in history as *the Commentator*. But if this were all St. Thomas could lay claim to, he would no more merit respect for independent contribution to philosophic knowledge than did Aristotle's more ancient commentators such as Simplicius, Philoponus, Themistius, Alexander, et al. The world, however, has been brought around to the general recognition that St. Thomas occupies a niche in the hall of philosophic thought as a daring innovator, as an independent and 'original thinker.'[5] Nowhere does one find in his works any pretence that the only thing necessary was the discovery of what Aristotle meant, and, once this was done, the servile acceptance of his opinions because they were his. As we shall have occasion to note, his reverence for Aristotle was no blind devotion to a name, no sycophantic obeisance to an authority, no uncritical enthronement of a person. Rather was his esteem the issue of a passion for that truth which Aristotle, with more than the usual meed of success had reached by none other than unaided rational implements. For all this, however. his preferential regard for the Philosopher might have been suspect had he been ignorant of the contributions of others to speculative thinking. It is generally acknowledged, however, that St. Thomas was amazingly conversant with the opinions of the majority of the world's great thinkers up until his day. His repeated references show his intimate acquaintance with, and always his deferential regard for such philosophers as St. Augustine, Alexander of Aphrodisia, Avicenna, Averrhoes, Maimonides, Avicebron, not to mention a host of others of Christian, Jewish, Arab and pagan antiquity. Aristotle's thought, then, was not the only philosophy he tried in his search for truth. As A. E. Taylor has so well expressed it:

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[4] Cf., *C. G.* III, 69, Amplius, Si effectus.

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[5] Cf. A. E. Taylor, "St. Thomas as a Philosopher" in Collection of papers read at the celebrations of the sixth centenary of the canonization of St. Thomas, Manchester, England, 1924, published under the title, *St. Thomas Aquinas* by Basil Blackwell, Oxford, 1924, pp. 34 ff.

> "He took his materials freely from the whole record of the classic past as far as it lay open to him and what he constructed out of them was no chaotic eclecticism but a coherent system welded into a unity by the presence throughout its details of a few great ruling principles won by permanent hard thinking and held with the clearest consciousness of their implications."[6]

In comparing Aristotle and Aquinas apropos of efficient causality, then, this much may be presumed: that the latter's agreements and disagreements with Aristotle are to be explained alike by one driving fact—an insatiable thirst for truth.

A final word now as to the plan and method of bringing out the comparison between Aristotle and St. Thomas. Obviously two alternate ways lie at hand for the compassing of this objective. One could consider their respective positions *pari passu;* that is to say, the thought of Aristotle could be presented, and, immediately thereafter, that of St. Thomas. Convergencies and divergencies would here be immediately noted. Or one could consider each separately and uninterruptedly in two successive and closely paralleled sections. Comment on the relation between the two would here be reserved to the second or thomistic part. The advantages of the former method consist in the striking character of the comparison and the avoidance of repetitions. It lends itself, however, to a certain disorder and discontinuity. At the risk of being repetitious then, the second method has been adopted as the better avenue of approach. While the comparison does not stand out immediately in this method, it has the distinct advantage of offering in unbroken continuity the integral theory of each. The force of the comparison that would seem to be lost in this approach may be compensated for by explicit animadversions in the parallel sections of the second part as well as by the use of a brief supplementary conclusion that will bring together in focus the similarities and differences.

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[6] *Op. cit.*, p. 44.

It is not the writer's purpose to exhaust the subject of efficient causality. He simply wishes to treat it in some of its more important issues. Consequently in closely paralleled chapters the following points shall be considered taxitively: general importance of causality in the mind of each; historical background in telescoped perspective; general etiological theory and place of efficient cause; efficient cause itself, its definition, the precise character and indispensable conditions of its causality; the reality of efficiency with special reference to the efficiency of the prime cause and secondary agents. The study will conclude with chapters dealing with the principle of efficient causality and the principle of uniform causation. Aristotle once said: "One must be content to state some points better than one's predecessors and others no worse."[7] That is an objective after which any writer of a dissertation might well aspire. It is a fervent hope that in treating the aristotelian and thomistic doctrine on efficient causality the writer may have approximated that somewhat difficult ideal.

A pressing though pleasant duty is that of rendering thanks to those who have in any way helped the writer in his graduate studies, and in particular in the production of this dissertation. He takes this occasion to profess his profound gratitude to his Eminence, Cardinal O'Connell, Archbishop of Boston, for the valued opportunity of attending the Catholic University of America. His kindly solicitude and paternal interest have been a source of encouragement and inspiration. This writer is moreover deeply conscious of his debt of gratitude to the Reverend Doctor Charles A. Hart under whose direction and supervision the work was undertaken and brought to completion. Doctor Hart has been ever accessible and constantly helpful. His own indefatigable energies and wise counsel have been a source of unfailing stimulation. To the Very Reverend Ignatius Smith,

---

[7] *Met.* XII (M), 1, 1076a, 15.

O.P., whose kindness and helpfulness extend far beyond the invaluable suggestions offered in the course of the writing and reading of this work, to the Reverend Doctor Jules Baisnée, S.S., for his penetrating and always constructive criticisms, to the Right Reverend Monsignor Fulton J. Sheen, for having perused half of the manuscript before illness called him away, to the several members of the faculty under whom he had the privilege of taking courses, the writer herewith acknowledges his indebtedness. He likewise expresses his sincere thanks to the Reverend Auguste M. Morisset, O.M.I., Librarian of the University of Ottawa and to the librarians of Catholic University for their constant helpfulness and service; to the Reverend John J. Hammill, M.A. and Mr. James Collins for many hours of enlightening conversation; to his sister, Miss Catherine I. Meehan for invaluable aid in the preparing of the manuscript; to many others unnamed for their constant support and assistance. It is his hope that somehow he may prove not altogether unworthy of their selflessness and generosity.

PART I

EFFICIENT CAUSALITY IN ARISTOTLE

FOREWORD

To attempt to understand Aristotle's concept of efficient causality apart from his general etiological theory would be tantamount to passing judgment on a single movement of a Beethoven symphony without knowing the underlying motif. The limited sphere of mental morcellation and intellectual precision would in either case warp the vision of the whole. It seems best then, at the outset, in order to avoid such danger of extreme specialization, that Aristotle's general theory of causes and its place in his system of philosophy be first propounded so that the doctrine of efficient causality may be seen in its essential relatedness to the former, and to the Philosopher's world view at large. But to treat of the latter and neglect at the same time Aristotle's concept of science in the ideal, to consider it in itself apart from its historical development and milieu, as well as from its integration with other fundamenal concepts and principles, such as being, becoming, potency and act, movement and the like, would render equally abortive an understanding of efficient causality in Aristotle. The matter at hand appears then to lend itself logically to the following preliminary development: 1. Causality and its relation to Science. 2. Causality and pre-Aristotelian philosophy. 3. Aristotle's general theory of causality.

After these have been considered in separate chapters, attention will be focussed on efficient causality proper and in succeeding chapters the concept and role of efficient cause will be presented under the following four headings: 1. Aristotle's definition of efficient cause; 2. The precise nature of the causality of efficient cause with special reference to the causality of secondary agents and the Prime Unmoved Mover; 3. Necessity of efficient cause (which will concern Aristotle's principle of moving causes); and 4. Causal necessity (or the principle of uniform causation).

Chapter I

CAUSALITY: ITS RELATION TO SCIENCE—WISDOM

1. *Wisdom—Knowledge of Being in its Causes*

Wisdom or true science, which is the logos and law of thought and truth, is regulated by being, which is the logos (λόγος) [1] and law of reality. In other words, for Aristotle, the law of being is the law of thought, and not, as Berkeley has expressed it, "being is to be perceived or known".[2] With this realistic approach Aristotle regards science. Wisdom, for him, is a knowledge of being, and being can be known only through its principles and causes. "Since we are seeking this knowledge," he says, "we must inquire of what kind are the causes and principles, the knowledge of which is Wisdom".[3] Grasp of causes, then, is the primary condition of true scientific knowledge.[4] Again and again we counter such expression as the following: "We suppose ourselves to possess unqualified scientific knowledge of a thing (as opposed to knowing it in the accidental way in which the sophist knows) when we know the cause on which the fact depends as the cause of that fact."[5] Similarly: "Knowledge is the object of our inquiry and men do not think they know a thing till they have grasped the 'why' of it (which is to grasp its primary cause)."[6] The "first philosophy", or wisdom par excellence, is not content, then, with a mere analysis of being, but seeks also the causes and it does not stop its inquiry until it has exhausted the series. "It is of being, as being, that we also must grasp the first causes."[7]

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[1] Logos is here taken to mean what its etymological derivative signifies in the original Greek, viz., reason or ground, and it includes consequently, the concepts of principle (ἡ ἄρχή) and cause (τὸ αἴτιον). The same thought is frequently expressed in German by the term 'der Grund'.

[2] *A Treatise Concerning the Principles of Human Knowledge,* by George H. Berkeley (Edit. by C. P. Krauth), Phila., Lippencott & Co., 1881, sec. vi.

[3] *Met.* 1, 2, 982a, 5: 'Επεί δε ταύτην τὴν ἐπιστήμην ζητοῦμεν τοῦτ' ἄν εἴν σκεττέον ἡ περὶ ποίας αἰτίας καὶ περὶ ποίας ἀρχὰς ἐπιστήμη σοφία ἐστίν. All quotations from Aristotle in the original, unless otherwise noted, will be taken from *Aristotelis Opera* (ed. Academia Regia Borrussica), Berlin, IV vols., 1831-1870. Those given in English are quoted from the Oxford translation of Aristotle's Works (ed. Smith and Ross, XI vols., Oxford, 1910-1930). In quoting from the *Metaphysics* of Aristotle, we shall follow the procedure of referring to the books by roman numerals rather than Greek letters. The numerals will parallel exactly the letters. What is commonly known as the lesser book one, or Book a, will be referred to as Ia.

[4] *Anal. Post.* I, 14, 79a, 23: κυριώτατον τοῦ εἰδέναν τὸ διότι θεώρειν.

2. *All Inquiry is Ultimately a Search after the Reasoned Fact or Cause*

Now what, it may be asked, has led Aristotle to this view of the necessity of a knowledge of causes for adequate scientific knowledge? By analysis of the facts of knowledge and man's psychological approach to science, he discovers that various modes of inquiry are instituted in the thirst for learning. He distinguished among these modes, four forms of inquiry, whose enumeration is taken to be exhaustive, to which all types of investigation can be reduced and in the answers to which all man's knowledge consists.[8] They are as follows:—

(1) *τὸ ὅτι* or the fact—"What is the fact with its specifications and qualitative determination?" e.g., "Does the moon suffer an eclipse, does it wax or wane?"

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[5] *Anal. Post.* I, 2, 71b, 8-11: *'Επίστασθαι δε οἰόμεθ' ἕκαστον ἁπλῶς . . . ὅταν τῆν τ'αἰτίαν οἰώμεθα γιγνώσκειν δι' ἥν τὸ πρᾶγμα ἐστιν, ὅτι ἐκείνου αἰτία ἐστί.*

[6] *Phy.* II, 3, 194b, 18-20: *'Επεὶ γὰρ τοῦ εἰδέναι χάριν ἡ πραγματεία εἰδέναι δ'οῦ πρότερον οἰόμεθα ἕκαστον πρὶν ἄν λάβωμεν τὸ διὰ τί περὶ ἕκαστον (τοῦτο δἐστὶ το λαβεῖν τῆν πρώτην αἰτίαν).* (The *πρώτη αἰτία* is interpreted as meaning the proximate cause, which is primarily responsible for an event). Cf. also *Met.* 1, 3, 983a, 25: *Τότε . . . εἰδέναι φάμεν ἕκαστον ὅταν τῆν πρώτην αἰτίαν οἰώμεθα γνώριζειν.* *Met.* Ia, 1, 993b, 23: *'Ουκ ‛ίσμεν δε τὸ ἀληθὲς ἄνευ τῆs αἰτίας.* *Anal. Post.* II, 11, 94a, 20 ff.

[7] *Met.* III. 1, 1003a, 31.

[8] *Anal. Post.* II, 2, 89b, 36. The four models are set down in *Anal. Post.* II, 1, 89b, 21 ff.

(2) *τὸ διότι* or the cause[9]—"What is the cause of the fact?" e.g., "Why or by what does the moon suffer eclipse, wax or wane?"

(3) *εἰ ἔστιν*, that is to say substantial existence or non existence of a thing.—"Does the thing exist or not without qualification (*ἁπλῶς*)?" e.g., "Does the moon, sun, earth exist?"

(4) *τὶ ἔστιν* or the essence—"What is it that exists?" e.g., "What is the moon, what is an eclipse, etc?"

Now all these questions bear on the cause—indirectly as in (1) and (3), for affirmative answers to these leave the mind unsatisfied and provoke the questions (2) and (4) viz., What is the cause, what the essence of the thing—directly as in (2) and (4) for they concern themselves explicitly with the efficient and final causes [responses to question (2)] or material and formal cause [responses to question (4)]. Thus Aristotle says that "it is the cause that we seek in all our inquiries."[10] Sciences that restrict themselves to the investigation of the bare unqualified fact (question # 3) or to the determination of the fact with its specifications and qualitative determinations (question # 1) are really not sciences in the strict sense, they are purely descriptive, not explicative. They are concerned with the fact alone (*τὸ ὅτι* and *εἰ ἔστιν*) and not with the reasoned fact (*τὸ διότι* and *τὶ ἔστιν*) and, as Aristotle points out, the two are poles apart.[11] Strict scientific knowledge demands the 'reasoned fact' since grasp of it is the primary condition of knowledge.[12] Our mind is satiated not alone with the reality of things but with the reason for things. The *scientia propter quid*, as St. Thomas[13] and the scholastics have termed this knowledge of the 'reasoned fact', alone appeases our thirst for knowledge. Obsessed with this rigid scientific ideal, it is true that Aristotle must plead guilty to the charge flung by the proponents of modern physical science. He *does* relegate to a position of minor importance, if not absolute neglect, merely descriptive sciences (*scientiae quia* as they are called). It is not our purpose to make a brief here in vindication of Aristotle's position, but rather, to indicate the paramount importance the Philosopher attaches to the knowledge of causes in science. Though he realized that the goal of knowledge is thus set very high, that it cannot be reached by many and can be attained at best only imperfectly by the few, yet it is an end not wholly unattainable, to which true philosophy should ever aspire. Wisdom or first philosophy, precisely because it is such a science which either God alone could have, or would have above all others, is for Aristotle a "divine science".[14] It is for this reason, too, that it is the perfect science and in a sense the only one deserving of the name. Being truly deductive it descends from cause to effect, it knows things through their dependency with respect to principles.

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[9] *τὸ διότι* is not only the 'why' but also the 'whence' as Trendelenburg remarks in his "Elementa Logicae" § 15 (ed. 8, p. 81). This term then embraces both the final cause and also the efficient cause. It is not uniquely, then, that 'for the sake of which', but also that 'by which'.

[10] *Anal. Post.* II, 2.

[11] *Anal. Post.* I, 13, 78a, 22.

[12] *Anal. Post.* I, 14, 79a, 23—"For grasp of the reasoned conclusion is the primary condition of knowledge."

[13] *Summa Theologia* I, q. 2, a. 2.

3. Cause as *τὸ μέσον*

The most perfect definitions are those which exhibit the causes of things[15] and the most perfect demonstrations are those which are truly apodictic of the same. This position explains Aristotle's remarkable analogy of cause to the middle-term of an apodictic syllogism.[16] For him, cause is to effect as the middle term of a syllogism is to its conclusion—that is to say, its logos, reason and ground. This is why Aristotle so frequently designates the cause as τὸ μέσον. Thus, for example, he says: —

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[14] Cf. *Met.* 1, 2, 982b, 28-983a, 10.

[15] *De Anim.* II. 2, 413a, 14 ff: *οὐ γὰρ μόνον τὸ ὅτι δεῖ τὸν ὁριστικὸν λόγον δηλοῦν . . . ἀλλα καὶ τὴν αἰτίαν ἐνυπάρχειν καὶ ἐμφαίνεσθαι νῦν δ'ὥσπερ συμπερασμαθ' οἱ λόγοι τῶν ὅρων εἰσίν. οἷον τί ἐστι τετραγωνισμός; τὸ ἴσον ἑτερομήκει ὀρθογώνιον εἶναι ἰσόπλευρους ὁ δε τοιοῦτος ὅρος λόγος τοῦ συμπεράσματος. ὁ δε λέγων ὅτι ἐστὶν ὁ τετραγωνισμὸς μέσης εὕρεσις τοῦ πράγματος λέγει τὸ αἴτιον.* The Oxford edition translated "*τῆν αἰτίαν*" and "*τὸ αἴτιον*" as "ground" in this passage, but it appears that "cause" in both cases is more expressive of the meaning.

[16] For a complete discussion of this analogy see the learned article of Leon Robin, "Sur la conception aristotelicienne de la causalité" in *Archiv*

> "Now when we are asking whether connection is a fact or whether a thing without qualification *is,* we are really asking whether the connection or the thing has a 'middle': and when we have ascertained either that the connection *is* a fact or that the thing *is* . . . and are proceeding to ask the reason of the connection or the nature of the thing then we are asking *what* the middle is." [17]

To be sure, τὸ μέσον here has evidently a wider signification than the middle term of a syllogism and can only be interpreted as meaning proximate cause as Aristotle clearly proves [18] for when it is a question for instance of disclosing the intrinsic constituents of a thing, in other words, of giving the essence and answering the question τὶ ἔστιν, then there is no place for a 'middle term', since the logos of the thing is not something other than itself, but rather its own definition by *genus* and *differentia.* To express it in a slightly different manner: the material and formal elements (material cause and formal cause) that go to make up the essence of a thing, unite directly, without the mediation of a 'middle'. Consequently it would be incorrect to identify either element with the middle term of a syllogism, since the definition or essence in which they terminate is not demonstrable, and a middle term has place only in demonstration. Nevertheless Aristotle permits himself the license of characterizing even these intrinsic causes, analogously, as τὸ μέσον.

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für Geschichte der Philosophie, Band XXIII, 1910, pp. 1-29, 184-210. See also O. Hamelin, *Le Système d'Aristote* (Paris, Felix Alcan, 1920, pp. 170 ff.)

[17] *Anal. Post.* II, 2, 89b, 37-90a, 2.

[18] *Ibid.,* 90a, 5 ff: " . . . in all our inquiries we are asking either whether there is a 'middle' or what the 'middle' is: for the middle here is precisely the cause, and it is the cause that we seek in all our inquiries"— And again 90a, 9 ff: "for the cause through which a thing is . . . without qualification . . . and the cause through which it is . . . this or that, as having some essential attribute or accident — are both alike the 'middle'."

The analogy has more proper application where demonstration is possible — or more precisely—where demonstration of the *reasoned fact* is possible. As was noted above, Aristotle clearly distinguished between the fact and the reasoned fact and therefore between demonstrations of both kinds. He cites an example of each dealing with the same terms.[19] Thus we have a demonstration of fact in the following:

Luminous bodies that do not twinkle are near
@ The planets do not twinkle
∴ They are near.

But "the major and middle of the proof . . . may be reversed and then the demonstration will be of the reasoned fact" thus:

Luminous bodies that are near do not twinkle
@ The planets are near
∴ They do not twinkle.

In the first syllogism the conclusion is not one of the reasoned fact since the planets are not near *because* they do not scintillate but rather, as the second syllogism indicates, they do not scintillate *because* they are near.[20] Their proximity is the reason for their not scintillating.

In both syllogisms (and as a matter of fact in all syllogisms) the middle term is really the cause (at least of the knowledge) of the conclusion. It is definitely a *causa cognoscendi* even though, in itself, it is an effect, rather than a real cause, for as Aristotle points out in the case of two reciprocally predictable terms the one which is not the cause may be the better known and so become the middle term of the demonstration.[21]

In syllogisms, however, that are demonstrative of the reasoned fact, the middle term is not only the cause of the conclusion but also of the fact itself: it is not only a *causa cognoscendi* but a *causa essendi seu fiendi:* and the expressions of Aristotle's commentators on this point are very marked.[22] Aristotle goes on to show how the cause is indeed like the middle term of a syllogism explicative of the specification of a subject and of the attribution of a predicate to this subject, by pointing out how the analogy can be verified in all the modes of causality without exception—in material, formal, efficient and final.[23] For our present purpose, there is no need of delineating each of these. Sufficient has been said, however, to indicate how vitally important Aristotle regarded the knowledge of causes in science. Let us turn our attention now to causality as it was treated by Aristotle's predecessors and the latter's criticism of the same.

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[19] *Ibid.* I, 13, 78a, 29 ff.

[20] Just as Aristotle proves (98b, 17) that the earth's interposition is the cause of the moon's eclipse and not the eclipse, the cause of the interposition.

[21] *Ibid.* lines 27, 28.

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[22] Cf. John Philoponus in *Scholia in Aristotelem* (collected by Brandis) 240a, 2-5: ἐν μὲν τοῖς ἄλλοις συλλογισμοῖς ὁ μέσος αἶτιος ἦν τοῦ συμπεράσματος οὐ μὴν δε καὶ τοῦ πράγματος ἐν δε τῷ ἀποδεικτικῷ συλλογισμῷ αἴτιός ἐστι καὶ τοῦ συμπεράσματος καὶ τοῦ πράγματος. (Vol. IV Aristotelis Opera, Academia Regia Borussica) cf. Themistius I, 59, 21 sq. Speng. (cf. 96, 22-27) . . . ἐπὶ τῆς αποδείξεως τὸ μέσον αἴτιον . . . μὴ τοῦ συμπεράσματος μόνον, ἀλλὰ καὶ τοῦ πράγματος.

[23] *Anal. Post.* II, 11, 94a, 20-94b, 25.

CHAPTER II

CAUSALITY IN PRE-ARISTOTELIAN THOUGHT[1]

It is a matter of historical note that we are indebted primarily to Aristotle and to historians dependent on him for the presentation of the causal theories of his predecessors, with the exception of Plato whose works have been preserved to us. It should be stated, however, that the record of the thought of these past thinkers which Aristotle recounts for us is not of a strictly historical character. That is to say, Aristotle did not set out to be an historian of philosophy, however deeply he may have been interested in past thought. His principal interest was in expounding his own philosophical views. Those of others are introduced incidentally—at times, polemically. Characteristically in his love of truth, wherever found, in his impartiality to all, in his desire to be an "arbitrator" rather than "party to a dispute", he probes deeply into the past and deploys the thoughts of others so that, as he says "those who have first heard the pleas of our adversaries will be more likely to credit the assertions we are going to make" and so that "we shall be less open to the charge of procuring judgment by default."[2]

It seemed necessary to make these remarks by way of prelude to the presentation of pre-aristotelian theories on causality, in the first place in order to emphasize the fact that Aristotle was not principally interested in history for itself and ought not therefore be judged—as some have attempted to do[3]—by the rigid canons of historical criticism; in the second place, to stress the fact that the Stagirite earnestly sought to depict the opinions of his predecessors with frankness and impartiality. It must be conceded that at times he veered from this noble resolve by reason of a lack of sympathy for the poverty of thought or for the strange interpretation that men of learning put upon the world of their experience. It must be admitted too, that this evident lack of sympathy and even this unfairness in the treatment of his predecessors renders him imputable to the charge of being unhistorical in certain portions of his presentation. This, however, does not vitiate the major part of his narrative and where his unsympathetic outlook does have play, we shall see in the following, that something at least may be said in extenuation and explanation of Aristotle's stand.[4]

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[1] For Aristotle's treatment of his predecessors on causality, confer especially *Met.* I, 3-10.

[2] *De Coelo* I, 10, 279b, 7-11.

[3] Cf. particularly the work of Harold Cherniss, *Aristotle's Criticism of Pre-Socratic Philosophy* (Johns Hopkins Press—Baltimore, 1935).

[4] For a sober and scholarly judgment of Aristotle's criticism of his forerunners cf. the work of A. E. Taylor, *Aristotle on His Predecessors* (Open Court Publishing Co., Chicago, 1907), pp. 35-40.

Ionic School

In the days of the older Ionians (Thales, Anaximander and Anaximenes) philosophic thought was in its infancy. As a child in its cradle concerns itself first with the questions: what is this little ball that is dangling before its unsteady gaze, of what is it made; and only gradually, with the progress of thoughts, interests itself in the purpose and the maker; in a similar manner, the philosophers of this 'incunabular period' of thought, first speculated on the matter of which their "ball, the earth" was made, and slowly by tortuous ways began to seek what might be termed the efficient cause, leaving completely, it seems, the discovery of formal and final causes to the time of Plato and Aristotle.[5] There can be no doubt but that this portrays accurately the progress of human thought and that Aristotle's brief but lucid account of the Atomism of the early Ionians is in all essentials thoroughly historical. Although the word 'cause' (*ἡ αἰτία*) was not used by them,[6] this does not alter the fact that what they really sought was the material of which the world consisted. It is a matter of indifference what term is used to describe it, but, as Albert Lang points out,[7] the bodily substance which they investigated can suitably or conveniently be called the material cause of the world.

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[5] *De Part. Anim.* I, 1, 640b, 5 ff: "Now that with which the ancient writers who first philosophized about nature busied themselves, was the material principle and the material cause."

[6] As Albert Lang points out in *Das Kausalproblem* (Köln, J. P. Bachem —1904), Vol. I, p. 74: "Das wort *αἰτία* welches sich in den Fragmenten der vorsokratischen Philosophen nicht findet . . . findet sich in der griechischen Philosophie zuerst bei Plato, nachdem bereits Hippokrates, Diokles von Karytos und andere Mediziner sich desselben in Sinne einer causa efficiens bedienst hatten".

Thus Thales, the founder of the Ionic School, asserted that this material principle was water.[8] Anaximenes (and with him, Diogenes may be included) made air prior to water[9] while Anaximander[10] asserted it was a quality-less original stuff, an indefinite matter. The latter, according to the testimony of Simplicius and Origen was the first, moreover, to use the technical philosophical term ἀρχή to designate the 'principle' sought by him and his school. In addition, he *did* attempt to explain the world process by an intermittent condensation and rarefaction of the air.[11]

The later Ionians among whom can be numbered Anaxagoras, Empedocles, Democritus and Heraclitus following in the footsteps of their intellectual forebears, likewise designated some substance or group of them as the material of which the world consisted. For Anaxagoras it was unspecified homoiomeria,[12] which were infinite in number and eternal, continually being aggregated or segregated. For Empedocles, it was the four elements; for Democritus, the full and the void and for Heraclitus, fire alone. These younger Ionians, however, took a faltering step beyond their predecessors in the direction of a grasp of efficient cause. The facts themselves, the fact especially of change, Aristotle says,[13] opened the way, and joined together in forcing them to take this step. They saw that the material principles fixed upon by the early Ionians left much unanswered and "were found inadequate to generate the nature of things".[14] They were forced to inquire, why does this happen and what is the cause? "For at least the substratum itself does not make itself change: e.g., neither the wood nor the bronze causes the change of either of them, nor does the wood manufacture the bed, nor the bronze, the statue, but something else is the cause of change".[15] Consequently, when Anaxagoras, though weakly and implausibly, asserted that this cause of change or movement was intelligence or reason (*νοῦς*) and when Empedocles 'lispingly' proposed friendship (or love) and strife as the causes of unity and diversity respectively, their utterances were hailed by Aristotle as the expression of "a sober man in contrast with the rambling talk" of their predecessors.[16]

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[7] *Ibidem,* p. 58:—Die korperliche Substanz, nach welcher die drei ersten Philosophen Griechenlands geforscht haben, könnte füglich auch die Materialursache der Korperwelt genannt werden."

[8] *Met.* I, 3, 983b, 20.

[9] *Ibid.* 984a, 5.

[10] *Ibid.,* 988a, 30.

[11] Cf. Albert Lang, *op. cit., p.* 59.

[12] *Met.* 1, 3, 984a, 11-17: 7, 988a, 27. Homiomerion literally means 'like part' (ὅμοιον μήρος).

[13] *Met.* I, 3, 983b, 17 ff.

Democritus, Aristotle seems to imply,[17] likewise sought to give feeble expression to the existence of efficient causes when he maintained that the causes of all other qualities lay in the primal qualitative differences of the elements themselves, viz., differences in shape, order and position. Since, however, shape, order and position do not express the nature of moving causes and of movement but, at most, can only be classified as terms of movements (either *a quo* or *ad quam*) and since, in addition Democritus heedlessly neglected substantial movement, he stands convicted of failing to penetrate in anything like a profound manner, the concept of efficient cause as presented by Aristotle.

Heraclitus of Ephesus, perhaps the most profound thinker of the Ionic School, occupies an important position in the history of philosophy and in the matter of efficient causality by reason of his unusual interpretation of reality. He denied forthrightly the existence of a world of being and substances and laconically decreed with dogmatic certainty that reality is identified with becoming. Nothing is, but everything becomes (πάντα ῥεῖ). He saw in contradiction the evolutionary factor of the world of change. Opposition, conflict, war was to him the father of all things (πόλεμος πατὴρ παντῶν). Just what influence this would have on a theory of causality is evident. If causality (and here we mean efficient causality) is conceived as merely an orderly succession or sequence of substance-less states or conditions, then it is quite clear that Heraclitus' teaching on causality anticipated in great measure Humean phenomenalism and without distortion of truth he can be regarded as the first representative of the modern scientific idea of cause. If, however, causality is conceived in a realistic sense of positive influx of one *being* on another, then it must be said that Heraclitus has made superfluous the causal category by his veritable denial of *being* itself.[18] Were Aristotle, who, as we shall see, understood causality in this latter sense, to betray impatience at this Heraclitean interpretation of reality it would, in a measure be understandable. We observe him on the contrary manifesting a more than tolerant attitude toward Heraclitus. He cannot convince himself for example that the latter seriously intended what he said when he denied the validity of the principle of contradiction, for man, frequently, does not believe what he says [19] and he is of the opinion that if Heraclitus were really questioned on the matter he would be forced to confess that opposite statements can never be true of the same subjects at the same time.[20]

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[14] *Ibid.* 984a, 9.

[15] *Ibid.,* 983b, 22 ff.

[16] Aristotle is charged with being unhistorical in crediting Anaxagoras and Empedocles with the concept of efficient cause. It may be that this is true, but we must understand that Aristotle at times purposely attempted to show how far the assertions of these earlier thinkers would permit of logical development into something like his own doctrine, instead of determining their actual original meaning. This attempt is very noticeable in the case of Empedocles where Aristotle admittedly tries "to follow out the view of Empedocles and interpret it according to its meaning and not to its lisping expression." (*Met.* I, 985a, 3)

[17] *Met.* I, 4, 985b, 10-15.

ELEATIC SCHOOL

Xenophanes, his pupil, Parmenides, and Melissus are the three most important representatives of this school. The first and last of these are summarily dismissed by Aristotle in his inquiry into the causes of being because they were "a little too naïve".[12] Parmenides, however, could not be taken so lightly for he "seems in places to speak with more insight".[22] All three stressed the oneness or unicity of being. In direct opposition to Heraclitus, Parmenides denied the eternal flux of states and insisted there was no becoming and could be none; there was only being. It is perhaps not useless to recall how he arrived at such an eristic position in the face of the facts of experience, especially since it has a definite bearing on his attitude towards causality. Obsessed by the principle of non-contradiction or of identity (of which, historically, he is credited with being the first formulator), with a dogmatism equal in intensity to that of Heraclitus he affirmed: being is being, non-being is non-being. And between the two there is an unabridgeable gulf. Unacquainted with the concept of being in potency—a later development of Aristotle's own—he adamantly refused to admit the possibility of becoming and with a mighty effort of will shut his eyes to the phenomena of change in the world about him and steadfastly maintained that movement was sheer illusion. With such a background his attitude toward efficient causality is readily intelligible. If change is outside the pale of possibility, if everything is being and nothing comes from nothing, then there is no need of postulating, or even, of supposing, efficient causes in the world. For, what purpose could they serve? To seek to produce something out of non-being? But this is absolute nothing and *ex nihilo nihil fit.* Out of being? But this already exists and therefore cannot become. Such is the logical consequence to which Parmenides is driven. It seems a strange misstatement of fact, then, when Aristotle attributes to Parmenides, as he does,[23] the acceptance of the efficient causality of love, in reconstructing the genesis of the universe—and moreover it is generally recognized as such, for the dualistic cosmogony in the poem of Parmenides cited by Aristotle, certainly does not

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[18] Cf. Lang, *op. cit.,* vol. I, pp. 64-66.

[19] *Met.* III. 3, 1005a, 25 ff.

[20] *Met.* X. 5, 1062a, 32.

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[21] *Met.* I, 5, 986b, 27.

[22] *Ibid.,* 1, 28.

[23] *Met.* I, 4, 984b, 25.

represent the author's own view. It is *not* strange, however, that Aristotle should evince an intolerant attitude towards the thinker of Elea and his school in general (as he does in *Physics* I, 2 & 3) for, as A. E. Taylor explains it: "A biologically minded philosopher to whom the development of the individual is the most salient fact of existence can hardly be expected to show much sympathy for thinkers who regard all change as illusory and thus leave no room for the science of 'ens mobile'." [24] Thus Aristotle holds in disdain even the investigation of the fact of becoming. "To investigate this question at all" (i.e. whether there is such a thing as motion), he says, "to seek a reasoned justification of a belief with regard to which we are too well off to require reasoned justification, implies bad judgment of what is better and what is worse, what commends itself to belief and what does not, what is ultimate and what is not".[25] And again, in even stronger language he says: "To maintain that all things are at rest and to disregard sense perception in an attempt to show the theory to be reasonable, would be an instance of intellectual weakness (*ἀρρωστία τὶς ἐστι διαννοίας*): it would also call into question a whole system, not a particular detail; moreover it would be an attack not only on the physicists, but on almost all sciences and all received opinions, since motion plays a part in all of them.[26]

PYTHAGOREANS

Aristotle's somewhat caustic references to the philosophers of this school [27] again betrays a want of sympathetic understanding for their speculations. This doubtless was due in some measure to the absence of trustworthy sources, but more perhaps to the fact that they too, like Parmenides, practically ignored movement since they treated of a class of things without movement,[28] devoting themselves almost exclusively to mathematical being.[29] In spite of his evident antipathy, however, Aristotle's presentation, at least of their ideas on cause is historically unchallengeable and it is this which is Aristotle's,[30] and incidentally, our own concern here. In their treatment of numbers they obviously were describing the ultimate principles of the material world. "Evidently", the Philosopher says, "these thinkers . . . consider that number is the principle both as matter for things, and as forming both their modifications and their permanent states".[31] The deficiencies in this causal theory, he proceeds to point out. "They do not tell us at all, however, how there can be movement if limited and unlimited and odd and even are the only things assumed, or how, without movement and change there can be generation and destruction, or the bodies that move through the heavens can do what they do".[32] And he concludes: "if . . . the numbers are to exist, they will be causes of nothing: or if not that, at least not of movement.[33]

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[24] *Op. cit.*, pp. 36, 37.

[25] *Phy.* VIII, 3, 254a, 30 ff.

[26] *Phy.* VIII, 3, 253a, 33-b, 1.

[27] *Met.* I, 5, 985b, 23-986b, 8, passim; X, 2, 1060b, 10; XII, 1, 1076a, 21 ff; XIII, 3, 1090a, 30 ff; 1090b, 2.

[28] *Met.* I, 8, 989b, 29 ff.

From what we have said thus far it can be seen that the ancient nature-philosophers concerned themselves with no more than the material cause and the cause of movement and did not even distinguish these clearly while they made no inquiry at all into the formal and final causes.[34]

Before turning now to Plato who rounded out the causal theory by supplying the concepts of formal and final cause, and incidentally furnished the matter for Aristotle's etiology, let us stop for a moment to consider what Gomperz terms the "precious phrase",[35] handed down to us from the writings of Leucippus of Abdera, the founder of Atomism and teacher of Democritus, to whom Aristotle pays scant attention. The "precious phrase" purports, to be the first explicit attempt to express the principle of causality. Unfortunately the treatise of Leucippus from which it is drawn is not extant (the περὶ νοῦ or "Concerning the Mind"). It is mentioned, however, by Johannes Stobaeus, a writer of the 5th century A. D. in his "Books of Selections" *(Libri Eclogarum)* and this latter is found in the scholarly works of Hermann Diels *Doxographi Graeci*[36] and *Die Fragmente der Vorsokratiker.*[37] The statement of Stobaeus runs as follows:

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[29] Lang, *op. cit.*, p. 68.

[30] *Met.* I, 5, 986a, 14, 15.

[31] *Ibid.*, 16 ff.

[32] *Met.* I, 9, 990a, 9 ff.

[33] *Met. XI*, 10, 1075b, 28.

[34] *De Gen. Anim.* V, 778b, 7-10: *'Οι δ'αρχαῖοι φυσιολόγοι . . . οὐχ ἑώρων πλείους οὔσας τὰς αἰτίας, ἀλλὰ μόνον τὴν τῆς ὕλης καὶ την τῆς κινήσεως, καὶ ταύτας ἀδιορίστως, τῆς δε τοῦ λόγου καὶ τῆς τοῦ τέλους ἀνεπισκέπτως εἶχον.* The extent to which they did speak of the first two causes, then is vaguely (*ἀλλ' ἀμυδρῶς ταυτας*—*Met.* I, 10, 99, 3*αβ*) and with no clarity, but as men untrained in fights (*Met.* I, 4, 985a, 10 ff), stammeringly, lispingly, like a child (cf. *Met.* I, 10, 993a, 15-16: *ψελλιζομένη . . . εὔικεν ἡ πρώτη φιλοσοφία περὶ πάντων ὅτι νέα τε κατ'αρχὰς οὖσα καὶ τὸ πρῶτον.*

> "Leucippus (says that) all things happen according to necessity and this (necessity) is their lot or destiny. For he says in the περὶ νοῦ: 'Nothing happens in vain or at random) but all things for a reason and of necessity'."[38]

The first part of this quotation is obviously Stobaeus' commentary on the words of Leucippus' thought. The latter alone represents the words of the Philosopher of Abdera. Diels translates these words in the following manner:

> "Kein Ding ensteht *ohne Ursache,* sondern alles aus bestimmten Grunde und unter dem Drucke der Notwendigkeit."[39]

Gomperz's version is that "nothing happens *without a cause,* but everything *with a cause* and by necessity." Burnet[40] renders it more faithfully it seems: "Naught happens for nothing . . . but everything from a ground and of necessity."

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[35] Theodor Gomperz, *Greek Thinkers* (tr. by G. G. Berry, London, John Murray, 1912), 3 vols.; cf. Vol. I, p. 317.

[36] Hermann Diels, *Doxographi Graeci,* Berlin, 1879 (p. 321).

[37] *Ibid. Die Fragmente der Vorsokratiker* (3 vols.), Berlin, Weidmannsche Buchhandlung, 1922 (Vol. II, ¶ 350).

[38] *Strobaci Eclogarum Libri* I, 4^{7}: *Λεύκιππος πάντα κατ'ἀνάγκην τὴν δ'αὐτὴν ὑπάρχειν εἱμαρμένην: λέγει γὰρ ἐν τῷ περὶ νοῦ. Οὐδὲν χρῆμα μάτην γίνεται ἀλλὰ πάντα ἐκ λόγου τε καὶ ὑπ' ανάγκης.*

[39] *Vorsokrat,* ¶ 350.

[40] John Burnet, *Early Greek Philosophy* (London, Adams, Charles & Black), 1908, p. 393.

These divergencies may appear slight, but they are mentioned because it seems important to find out exactly what Leucippus meant when and *if* he wrote these words. It is only on this fragment that it is assumed that Leucippus first broached the principle of causality. Now it should be noted that the word *cause* is not mentioned in the original Greek of Stobaeus. It would have been anachronistic to be sure, to have expected it, for the reason mentioned above,[41] but one wonders whether the words "ohne Ursache" (Diels) and "without a cause" (Gomperz) accurately express the Greek word *μάτην* or whether Gomperz's "with a cause" is an exact rendering of *ἐκ λόγου*. A literal translation warrants our concluding that, if the words are authentic, Leucippus intended an explicit denial of the existence of chance and an express avowal of the rule of reason in the world (and this seems more in keeping with his title, *περὶ νοῦ*). In other words, it seems to be a formulation of the principle of sufficient reason rather than of causality.

Granting, however, in deference to the scholarship of Diels and Gomperz that the sentence might also express the principle of causality, one might ask the further question—Did Leucippus intend to include the principle of determinism with the principle of causality when he said: *πάντα ἐκ λόγου τε και ὑπ'ἀνάγκης*?[42] In other words, did he include "causal necessity" with "necessity of a cause"? This is an important distinction which will have to be remembered frequently in the treatment of causality. By *"causal necessity"* is meant that "causes must necessarily act".

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[41] Page 13, note 6, supra.

[42] If we are to conclude that he did intend to express a deterministic principle then, with F. M. Cornford, "we may recognize in this Ananke the figure of Moira, still preeminent in a world from which the Gods have utterly vanished." Moira (*μοῖρα*—fate, destiny) is the hypostatization of that mighty force to which, in Greek religion and philosophy the greatest of the gods themselves, even Zeus, were subject. Cf. F. M. Cornford *From Religion to Philosophy* (London, Edward Arnold, 1912), p. 157.

By *"necessity of a cause"* is meant that effects postulate some cause.

The answer to the question, however, is doubtful for the words are susceptible both of a meaning that includes "causal necessity" (and this is reflected in the translation of Burnet that "everything is from a ground or cause and of necessity") as well as a meaning that prescinds from "causal necessity". (For it is no distortion of the meaning to translate the phrase in this fashion: everything is from a ground or cause and this, necessarily so).

Whatever be the interpretation put upon these words, we are brought back to the question of their authenticity, which no one it appears can certainly answer. To the question, why did not Aristotle mention this statement of Leucippus, there are only two possible answers. Either he was unfamiliar with the writings of Leucippus in their entirety or else the proposition attributed to Leucippus is not authentic. When one considers that there is every reason to expect that Aristotle would mention it, if he knew of it, and that he would most probably have known of it, had it existed, since he took pains to set forth the opinions ot his predecessors when they are related to causality as he set out to do in *Metaphysics* I, 983b, ff., one is inclined to lean toward the solution that possibly the fragment attributed to Leucippus lacks historicity.[43]

Continuing now the presentation of the historical milieu in which Aristotle grew and from which he drew, we shall now turn our attention to the causal theory of that great master of dialectic with whom Aristotle dared, decidedly though with deference, to differ, his teacher, Plato.

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[43] A further possibility suggests itself. The phrase may wrongly be attributed to Leucippus of Abdera. St. Thomas makes mention (*In VII. Met.* 1, n. 1266, Cath. Ed.) of a Leucippus "qui successor fuit Platonis et ex sorore nepos". It is true, historically, that the only known "successor of Plato and nephew on his sister's side" was *Speucippus,* and it is likely that a chirographical error had crept into Moerbeke's translation, leading to a confusion of names. On the other hand there may have been such a Leucippus as St. Thomas speaks of; in which case, it is possible that he has given utterance to these words accredited to the Leucippus of Abdera. If this is so then the expression is readily intelligible, for Plato, his predecessor had made a similar statement in the Timaeus (28a): *πᾶν δε γιγνόμενον ὑπ'αιτίου τινος ἐξ ἀνάγχης γίγνεσθαι* and Aristotle's own expression is even more striking (*De Coelo,* II, 11, 291b, 14): *ἡ δε φύσις οὐδὲν ἀλόγως οὐδὲ μάτην ποιεῖ.*

PLATO

The doctrine of causality, through the works of Plato became 'hitched to a star' and, in the words of Pastore "took the flight of an eagle."[44] He recalled the contribution of previous philosophic inquiry to causality and with the greatest of care, purified, and raised them to the super-celestial region of the Idea and the Good. It was in this very process that Plato elaborated his theory of "Forms" or "Ideas" Because, then, of its intimate relationship with platonic etiology it will be necessary to sketch briefly the evolution of this theory.

The celebrated or supposed opposition between Being and Becoming over which the pre-socratics had struggled with no solutions, became the first motif of Plato's teaching on ideas. After considered thought, he arrived at the point of view that both Heraclitus and Parmenides were partly right—the first in insisting on becoming and the latter in asserting the worth of being. The error of both, however, lay in the fact that their principles were thought only part way through. Instead of the antithesis between being and becoming they should have regarded them symbiotically, correlatively. It was not a case of being or becoming, but rather of being and becoming. The two worlds were distinct but not contradictory. Unable to escape the persistent influence of the heraclitean, Cratylus, who was his first teacher, Plato felt ineluctably drawn to the admission of the fact of continual becoming attested through sense experience and so he regarded the view of Heraclitus that everything was in flux as having its rightful place and value in the empirical world. The Eleatics, too, had their influence on Plato. Over and above the world of becoming there must also be Parmenides' world of being.

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[44] Anibale Pastore, *Il Problema della Causalità* (Torino: Fratelli Bocca, 1921), 2 vols.: vol. I, p. 43: "La dottrina delle cause fece un volo d'aquila per opera di Platone".

In such a world alone rested the possibility of knowledge. From Socrates, he had learned that the basis of authentic knowledge lay in the universal definition. But he could not bring himself to believe that this universal could exist in what was changing incessantly.[45] And so he postulated the existence of a world of realities, universal, permanent, intelligible, *apart* from what is individual, changing and sensible, and without which there could be no science. These realities then are the Ideas or the Forms which actually in respect to sensible things play the role of determining principles or causes. Do they exist separately from sensible things in a *τόπος ὑπερουράνιος* of their own? This is a point over which the scholars disagree.[46] There is no doubt, however, what Aristotle's conviction in the matter is. It was his belief that Plato gave them a separate entity from things [47] and it was precisely this phase of Plato's theory of ideas that he assailed from the point of view of causality as we shall see below. It is quite generally conceded now that the Ideas of Plato are not mere conceptions of the human mind, nor mere thoughts of God,[48] and that, moreover, they have an absolute existence.

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[45] For influence of Cratylus and Socrates on Plato, cf. *Met.* I, 6, 987a, 30-b, 10.

[46] Alfred Benn, *The Greek Philosophers* (London: Smith, Elder & Co., 1914) is of the opinion that it was not Plato's belief that the Forms are "hypostatized essences" and that he (Plato) refused to acknowledge an independent and isolated existence for them (cf. *loc. cit.,* p. 216), though he cites none of Plato's words that can be interpreted as a denial of this. Albert Lang seems to be inconsistent. In one place (*op. cit.,* vol. I, p. 79) he cannot agree, he says, with the customary interpretation of Plato's ideas—viz., that they are separate and independent substances but rather feels that Plato has placed the Idea of Good at the apex of his supercelestial realm, his heaven of ideas and that he understands by the Idea of the Good, the Godhead, the divinity, which, as an eternal and created intelligence, enthroned over the world of becoming, expresses himself in the character of orderliness and reason. This in itself appears inconsistent, for in one place he denies that the ideas are separate and independent substances and implicitly affirms they are when he speaks of Plato's "heaven of ideas". It is likewise at variance with a previous statement (*ibid.,* p. 74) to the effect that "Plato hypostasiert den Begriff und macht aus ihm ein Wirkliches und Wirkendes oder einer Ursache". The great Greek scholar, Léon Robin in his work *Platon* (Paris: Félix Alcan, 1935) definitely appears to align himself on the other hand with the customary interpretation of the separate existential reality of these ideas when he says: "Il y a donc des réalités universelles . . . *à part de* ce qui est individuel, changeant, sensible" (p. 141). Eduard Zeller in *Die Philosophie der Griechen* (Leipzig: Fues's Verlag, 4th ed., 1889), likewise appears to affirm the same: "Dieses Allgemeine, welches die Idee ist, denkt sich nun Plato von der Erscheinungswelt gesondert als für sich seiende Substanz". (Teil II, Abt. I, p. 662; cf. also p. 663).

They are therefore transcendent noumena, hypostatized entities, as Lang points out,[49] and Plato made of them Realities, effective principles or causes, in fact the only true causes of appearances and phenomena. The latter constitutes in fact an unreal world, mere reflections, images, adumbrations of the Ideal world. It is the Ideas themselves which cause, both formally and efficiently, these shadowy realities—formally, because they specify and determine their nature, efficiently because they produce them. They are expressly designated as the causes of things in the Phoedo (95 E) and the highest of ideas, that of the Good, is described as the cause of all reality and knowledge (Republic VI, 508). Since the being which they impart to things is of a kind that can only be explained by reason working toward an end, reason must be conceded to them,[50] for it would be absurd to think that the guidance of the world was left to irrational and random chance [15] when order and purposiveness are so obviously present. Ideas, then, for Plato, function in three capacities, that of efficient, formal and final causes. Matter, the *μὴ ὄν*, which in a certain manner exists, fills our theory of the four causes. We say that it is a non-being,[52] in the platonic system. It must necessarily be so for the Idea alone is being and consequently matter must be a non-being. Were it also a Being, it would cease to be matter and become an idea.[53] Nevertheless although it is non-being it must in a certain manner exist since it is the receptacle for the sharing in ideas, a position to which Plato felt himself driven in an attempt to reconcile the apparent antimony of the fact of change and Parmenides' principle of contradiction.[54] Its role, however, is an unenviable one according to Plato, for it is responsible for all disorder, imperfection and frustration of purpose that we see in the world about us. If there were no matter, then Ideas would be reflected purely and perfectly. But they are hindered in their activity and this hemming principle is the unblessed matter.[55]

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[47] Cf. *Met.* I, 6, 987b; 30: VI. 8, 1033b, 25 ff.

[48] Zeller, *ibid.*, p. 664, 665.

[49] Cf. note 46.

[50] Cf. S. A. Alleyne and A. Goodwin, *Plato and the Older Academy,* a translation of Teil II, Abteilung I of the 3rd edition of Zeller's *Die Philosophie der Griechen,* p. 268.

[51] *Philebus* 28 D. See Socrates' probing question and Protarchus' definite response: "that mind orders all things, is worthy of the aspect of the world and of the sun and of the moon and of the whole circle of heavens", the inference being that from such order one can only conclude to the existence of final causes operating in the world.

In connection with the efficient causality of ideas, Plato quite clearly expressed a formula of the principle of causality and indicated its necessary character when he said: "Now all things that come to be must needs be brought into being by some cause, for it is impossible for anything, without a cause to attain to birth".[56] This principle is the basis for his kinesiological proof of the existence of an unmoved mover, which starts out from the fact of movement in the world.[57]

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[52] Cf. Albert Lang, *Das Kausalproblem,* vol. I, p. 76: " . . . der platonische Begriff der Materie . . . als ein μὴ ὄν definiert wird."

[53] *Ibid.:* "Die Idee ist das Seiende, folglich muss die Materie ein μη ὄν sein; wäre sie auch ein Seiendes, so wäre sie eben nicht mehr Materie, sondern Idee."

[54] Cf. *Plato's Dialogues* (Jowett translation—N. Y. Random House, 2 vols., 1937). *The Sophist,* 241d, 257a, 259c: See also Garrigou-Lagrange, *God, His Existence and His Nature* (tr. Rose, Herder, St. Louis, 1936, 2 vols.), vol. II, Epilogue, p. 549.

[55] Cf. Albert Lang, *op. cit.,* p. 76: "Die Materie ist schuld an aller Zweckwidrigkeit, Unordung, und Mangelhaftigkeit der sinneswelt. Ware keine Materie, da, so wurde sich die Idee rein und vollkommen abspiegeln, sie wird aber in ihrer Tatigkeit gehemmt, und dieses hemmende Prinzip ist das unselige μη ὀν, die Materie."

[56] *Timaeus,* 28A: πᾶν δε αὖ το γιγνόμενον ὑπ' αἰτιου τινος ἐξ ἀνάγκης γίγνεσθαι. παντι γαρ ἀδύνατον χωρὶς αἰτίου γένεσιν σχεῖν. Cf. *Philebus* 26E: Socrates addresses Protarchus: ὅρα γὰρ εἴ σοὶ δοκεῖ ἀναγκαίον εἶναι πάντα τὰ γιγνόμενα διὰ τιν'αιτιαν γίγνεσθαι; to which Protarchus readily responds: ''Εμοιγε πῶς γαρ ἄν χωρὶς τούτου γίγνοιτο. Cf. also *Phaedon* 95E-99D.

Here briefly is Plato's theory of causality. We see that he has not only mentioned and explained all four causes, but has given us an explicit version of the principle of causality. With what, then, in Plato's etiology, does Aristotle take issue? Certainly not with his failure to mention all four causes [58] or the principle of causality, but rather with his misunderstanding of the distinct functions of efficient, final and formal causes, which derived from his "unreasonable" [59] theory of ideas.

Aristotle's disagreement with Plato goes back fundamentally to the conception of Forms or Ideas. It was Aristotle's firm persuasion that the εἴδη, those universal realities of Plato, had no existence, no being, as universal, save in the mind. If they are actualized in the order of nature, they lose their universality and become particularized in individual things wherein, alone, they function as the form, act, entelechy of these natures, as well as the intrinsic end or perfection and the principles of action of the same. Apart from the individual they can indeed, and, must be thought of as universal. But this abstract conception of the universals does not imply that the universal ideas as such really exist. Much less does it imply that they are the only real existents of which the appearances are but adumbrations as Plato would hold. Even more fantastic to Aristotle appears the theory that universal ideas could efficiently originate movement. Of themselves, they are not dynamic, but static and would not become particularized in individuals unless there is something, an individual existent over and above them to originate movement.

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[57] Cf. *Laws,* X, 889 E, 898 C: XII, 966 D, 967 D.

[58] When in *Met.* I, 6, 988a, 9, Aristotle says: " . . . it is evident . . . that he (Plato) has used only two causes" viz. the form and the matter, it is not from his failure to understand that Plato regarded the *forms* as *efficient causes* also. For he definitely ascribes such a belief to Plato in several other places (cf. *Met.* I, 9, 991b, 3-5; XII, 5, 1080a, 1-5; *De Gen. et Corr.* II, 9, 335b, 15ff). When he says therefore that Plato *used* only two causes it can only mean that the latter reduced final and efficient causes to these separated forms and that beyond these there were no final nor efficient causes.

[59] *Met.* I, 6, 988a, 1.

Plato's theory of ideas then with its causal inferences was regarded as groundless and gratuitous by Aristotle, and in his criticism of the same,[60] the latter implies that the Atomists with all their materialism were nearer the truth, in the matter of efficient causes at least. For the latter assimilated the efficient cause to the material cause because they saw matter as it were, animated with movement, and because precisely, the exercise of efficient causality seemed bound up with the deploying of movement. Therefore their thought was more conformable to the real than was that of the Platonists with their transcendent noumena. The dialectic method of the latter is purely logical, drawing its explicative powers, not from the observation of the real world as a philosophy should, which starts out from experimental facts, but rather from aprioristic reasonings and abstract concepts, which, separated from reality, are no longer vivified by it.[61] Consequently as Marcel de Corte points out, the position of the Atomists who regarded the initiation of movement as coming from matter and had thus very naturally confused the efficient cause with the material cause which they believed capable of producing movement, was physically more tenable than the Platonists', in the opinion of Aristotle—and this, not because Aristotle believed that the origin of movement is nearer to matter than to idea, but because they emphasized the dynamic character of efficiency. It was their error to have associated this dynamism with matter.[62]

From this historical presentation of the causal theory of early Greek philosophers and Aristotle's criticism of them, we see beginning to evolve, the germs of his own concepts of cause in general and efficient cause in particular. The crystallization of these notions will perhaps be seen more clearly now as we turn to the elucidation of his own etiology.

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[60] Cf. Praesertim, *De Gen. et Corr.* II, 9, 355b, 8-30.

[61] For this comparison between the relative merits of Atomism and Platonism see Marcel de Corte, *Aristote et Plotin* (Paris: Desclée, de Brouwer et Cie, 1935), pp. 71-72.

[62] *Ibid.*, p. 27.

CHAPTER III

ARISTOTLE'S GENERAL THEORY OF CAUSE

THE FOUR CAUSES

Remembering Aristotle's estimate of the value of a knowledge of causes in science, it is not surprising that he, better than any one else in Greek Philosophy, recognized the fundamental importance of the problem of causality. This explains why he entered upon an historical analysis and comparison of the etiological concepts of his predecessors. It likewise accounts for the fact that, after having discussed the theories of his intellectual forebears he sought to purify and deepen, refine and define the meanings of the word cause and to compound these meanings into an organic system both normative as well as constitutive of his scientific and philosophic conceptions.

Cause, Aristotle maintains, is used in four senses, viz. (1) as the matter out of which a thing comes to be and which persists in change, (2) the form and the model which is the determining factor in the essence, (3) that whence is the first beginning of change or of rest, (4) the end or that for the sake of which something is done.[1] These are traditionally designated respectively as the material, formal, efficient and final causes—terminology fixed by the scholastics. Strangely enough, Aristotle fails to define the genus under which these four species of causes fall—that is to say—in no place has he given us the precise signification of the word, *cause,* itself.[2] In his philosophical lexicon or book of definitions (Book IV [Δ] of the Metaphysics) he does intimate that cause is itself a species of ἀρχή or principle which he defines as "that whence a thing first is, or becomes or is known".[3] He neglects however (in a place where we would be most inclined to expect the opposite) to give the note differentiating causes from all other types of principles. As a matter of fact, he confuses the two terms, "principle" and "cause", for after his enumeration of the various meanings of ἀρχή, he concludes: "Causes are spoken of in an equal number of senses, for

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[1] Cf. *Phy.* II, 3, 194b, 23 ff: "Ενα μὲν οὖν τρόπον αἴτιον λέγεται τὸ ἐξ οὗ γίγνεταί τι ἐνυπάρχοντος . . . ἄλλον δε τὸ εἶδος καὶ τὸ παράδειγμα. τοῦτο δ'ἐστὶν ὁ λόγος ὁ τοῦ τί ἦν εἶναι . . . "Ετι ὅθεν ἡ ἀρχὴ τῆς μεταβολῆς ἡ πρώτη ἢ τῆς ἠρεμήσεως . . . "Ετι ὡς τὸ τέλος. τοῦτο δ'ἐστὶ τὸ οὗ ἕνεκα (From the Carteron Edition, *Aristote Physique* (Paris 1926). Always with but slight variations, Aristotle speaks of these four causes in the same terms (cf. *Anal. Post.* II, 11, 94a, 21 ff; *Met.* I, 3, 983a, 26 ff; V, 2, 1013a, 24 ff; *De Gen. Anim.* I, 715a, 3-6). In one place he designates the matter out of which something comes to be as the "antecedent which necessitates a consequent". This reference is drawn from the *Organon* (*An. Post.* II, 11, 94a, 22) and the description here is naturally a logical one. As in a syllogism, the premises are regarded as the 'matter' of the conclusion, which demands a consequence so in his physics and metaphysics the τὸ ἐξ οὗ γίγνεται is the matter of the thing which becomes and demands a consequence, i.e., the form, for it cannot itself stand alone. The form (εἶδος) is sometimes described by synecdoche as the substance or essence, the whole being taken for the part which specifically determines it. In

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his use of τὸ παράδειγμα (in the place cited) St. Thomas and other Aristotelians have seen the basis for a fifth cause, i.e., exemplary (or model) cause, but Aristotle does not distinguish the τὸ παράδειγμα from the τὸ εἶδος and this appears to be one of the few places he has used the former term. The last two causes (final and efficient) are described almost invariably in the same terms.

[2] From this failure to define the generic concept of cause in any place, it would be a mistake to conclude that there really existed, in Aristotle's mind, no genus to which the four causes were reducible, but that all four in themselves were supreme and irreducible genera. It is definitely the opinion of Aristotle's competent interpreter, St Thomas, that the Stagirite at least implicitly subsumed the four causes under the one common generic notion, cause. Thus, in his commentary on Bk. IV, c. 2, of the *Metaphysics,* St. Thomas says: "Primo (Aristotles) assignat species causarum" and again, "Primo enumerat diversas species causarum" (*In V Met.* 2, n. 763). More explicitly he points out the Aristotelian distinction between species of causes and modes of cause: "Est autem distinctio causae per species et per modos. Nam distincto per species est penes diversas rationes causandi; et ideo est quasi divisio per differentias essentiales species constituentes. . . . Divisio autem per modos est penes diversas habitudines causae ad causatum. Et ideo est in his quae habent eamdem rationem causandi. sicut per se et per accidens, remotum, et propinquum. Unde est quasi per differentias accidentales non diversificantes speciem." (*In V. Met.* 3, n. 783)

[3] *Met.* IV, 1, 1013a, 18: πασῶν μὲν οὖν κοινὸν τῶν ἀρχῶν τὸ πρῶτον εἶναι ὅθεν ἡ ἐστὶν ἤ γίγνεται ἤ γιγνώσκεται.

all causes are beginnings."[4] From his definitions of the four causes however, we can glean the mark or marks which separate the causal principiant in the ontological order (and here we exclude the causal principiant of the merely logical order) from all other kinds of principles. There is definitely a liaison of dependence between the cause and effect that is not found in the relationship between other principiants and their principiates. There is definitely too a contribution to the being and the becoming of the effect, for which the cause is responsible—(*αἴτιος* the adjectival form of *αἰτία* etymologically means "responsible for"). This likewise is wanting in other principiants. The cause then for Aristotle can only mean that particular kind of principle which contributes some kind of being to another and on which as a consequence this other is dependent.

Many examples are at hand to illustrate the function of the four causes and while Aristotle's analysis was without doubt originally suggested by his interest as a biologist in the facts of organic development, he frequently alludes to the products of art to exemplify the part played by these causes.

Often the appeal is to the sculptor's art. The illustration might follow on these lines. Perictione, the widow of Hermes desires to have a monument erected in memory of her husband. An idea, more or less vague, presents itself to her mind of the particular form of this memorial. But this end to be attained cannot be realized by her desire alone. She betakes herself to the sculptor, Protarchus (efficient cause) and makes her request, presenting her somewhat definite object. Protarchus with a view to the carrying out of this object (final cause) makes his choice of the material he will work upon, marble or bronze, as the case may be (material cause). The same end or purpose which guides his selection of the material, governs the sculptor in the execution of his art, in the movements of his mallet and chisel down to the very last stroke, down to the realized product, when finally a detailed form (formal cause) is imposed on the matter.

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[4] *Met.* IV, 1, 1013a, 17: *ἰσαχῶς δε καὶ τὰ αἴτια λέγεται. παντα γὰρ τὰ αἴτια ἀρχαί.*

As in the works of art, so in a similar way, in the works of nature itself. As the final form of Protarchus' statuary was in potency in the unhewn marble, so the living being, plant, animal or man is in potency in the germ. Under the influence of the parents (efficient causes) themselves determined and oriented to an end (the perpetuation of the species) the living matter of the germ cells received the vivifying impulsion to produce the species (formal cause) in a new individual.[5]

In both illustrations we see clearly an ordered concurrence of all four causes in the being and becoming of the effect. The effect is definitely and positively dependent, though in different ways, upon all for all contribute being in their own proper manner to the product.

FINAL CAUSE

Of the four species of causes, one appears to have priority over the others at least in the *intentional order* viz. the final cause[6] for its efficacy is felt not only on the effect to be produced but on the other causes which concur in this production. For it is the *reason* why the efficient cause initiates action; it is the *reason* why the same cause acts on some definite matter and not on another, since all matter is not equally and indifferently disposed to the end in view, nor proximately potential to the same; it is the *reason* ultimately why a determined form is imposed on this matter, constituting it in a definite species of being. In this *intentional* order the *παράδειγμα* or exemplary cause of the effect may be regarded as coincident with the final cause or reason though it was left, not to Aristotle, but to later scholastics to elucidate this point. In the order of *execution,* however, this same final cause becomes the end, or that which is finally attained for it is the actualisation of this end both in nature and art, to which the efficient cause directs its action and which, only ultimately, is achieved in the potential material cause.

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[5] Cf. Roland-Gosselin, *Aristote* (Paris: E. Flammarion, 1928), pp. 84-87.

[6] *De Part. Anim.* I, 1, 639b, 14-15: "Plainly however that cause is first which we call the final one. For this is the reason, and the reason forms the starting point alike in works of art and in works of nature.'

One can see that in Aristotle's system, the final cause plays a tremendous role. Without it, there would be no effect produced. Without its influence, no agent would determine itself or be determined or excited to act. This function of the final cause is definitely recognized in works of human art; there we clearly see an intelligent agent deliberating, rejecting this or that matter, this or that instrument and in general being normatively guided by the reason, purpose or end in view. But Aristotle is equally emphatic in asserting the presence of final causes in the works of nature, even though one cannot observe there any deliberation of an agent.[7] Just as in art, so in nature there is teleological action. If swallows build their nests it is that they might have a natural habitat in which to live; if spiders spin their webs, it is that they may have a milieu in which to operate; if plants grow leaves, it is for the sake of the fruit; if they send their tendrils and roots down and not up, it is for the sake of nourishment; if some teeth are incisive and others molar it is that they may perform different and necessary functions in the process of mastication.[9] All these indicate actions that are conducive to an end. Nature then is like a doctor doctoring himself, for obviously it is a cause operating for a purpose.[10]

The final cause is frequently assimilated by Aristotle to the formal cause in natural generations and productions.[11] The reason is that the final cause of any living being is simply to exist in the most perfect form possible. Nature,[12] Aristotle affirms, in all things, always strives after the better.[13] That is why the determination of matter by the formal cause in the most perfect way possible is considered the final cause of movement and generation of natural things. Consequently Aristotle says "the 'what' and the "that for the sake of which' are one".[14] If we are to attach a numerical unity to this oneness, as the Philosopher seems to imply (for in the next sentence he says that the efficient cause likewise is one with the final and formal causes, but only *specifically* so), then it can only mean that the form is identical with the end *only* when the end is objectified in the order of nature, only when the reason is realized in the effect. But in this case it ceases to be a cause, as an end, and gives way to, or rather coalesces as an entity with, the cause, as form. On the other hand *precisely as a cause,* the end must be numerically distinct from the form, for the final cause exists (even though with only ideal existence) prior to the effect, prior even (at least in nature) to the initiation of movement on the part of the efficient cause which results in the effect; whereas form, as cause, is the actuality of the matter in potency, the determination, the complement, the perfection or entelechy of an actuable, determinable, complementable capacity that resides in the matter. It is contemporaneous therefore with the effect, an intrinsic constituent of the same and cannot be prior, save only naturally, to the effect. But more of the relations of formal cause to material cause later. We have touched upon them here simply to emphasize the fact that while in one sense the formal cause is numerically one with the end nevertheless the *end,* as a *cause,* is numerically distinct from the form.

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[7] *Phy.* II, 8, 199b, 26 ff: "It is absurd to suppose that purpose is not present because we do not observe the agent deliberating."

[8] *Phy.* II, 8, 199a, 25-33.

[9] *Ibid.*, 198b, 24 ff., c. 34 ff.

[10] *Phy.* II, 8, 199b, 30-33; cf. *ibid.*, 199a, 7-12.

[11] *De Gen. Anim.* I, 1, 715a, 306: After defining the final and formal causes, Aristotle states parenthetically: "And these two we may regard pretty much as one and the same."

[12] For the meaning of the term nature in this sense consult the scholarly work of J. M. Marling, *The Order of Nature* (Catholic University Ph. D. Dissertation—1934), p. 8.

[13] *De Gen. et Corr.* II, 10, 336b, 27: " . . . in all things, Nature strives after the 'better'."

If the formal cause, as such, is numerically distinct from the final cause in natural generation, so too the efficient or moving cause is numerically distinct from both, although, as Aristotle says, it is specifically the same.[15] It is man indeed who generates man, but the efficient cause is a different individual from the effect produced. It is Peleus who is the father of Achilles. Thus it is not one and the same nature taken in its individual unity that is simultaneously the end or the form produced and the efficient cause of the same. It is obviously impossible that the nature, or the form of the produced being, be at the same time the originative cause of its own production. The form as an end is the term at which the process of natural generation ceases. The nature of the productive cause on the other hand is the source of the process of natural generation—and this nature, being the form of a pre-existing individual, distinct from the form of the being engendered, must be numerically distinct from the latter.[16] Another characteristic clearly distinguishes the efficient cause from the formal and final causes. It alone is active in the production or generation of the new substance. The form which is the term of substantial generation cannot be active in the process of generation, for this would mean that it would be active before it is in act. Such a possibility however is repugnant to Aristotle who clearly proves [17] that act is prior to potency and consequently that actuality of form (which is in the order of substance) must be prior to activity of form (which is in the order of accidents). Nor can the end or final cause be active in the actual production of the new being. Certainly it cannot be active in the sense in which it is coincident with the formal cause, for the obvious reason just given. No more can it be active in the actual process of generation if it is considered in the sense in which it is numerically distinct from the formal cause, viz., as an idea in the intentional order or as an object of appetite. In this case it may and does move and influence the efficient cause but it exercises no activity in the process itself of generation. Consequently Aristotle states: "The active power (*τὸ ποιητικόν*) is a 'cause' in the sense of that from which the process originates: but the end for the sake of which it takes place is not active".[18] And he goes on to say that it is only in a metaphorical sense in which one can say that health, for instance, (which pertains to the nature of a formal or final cause) is active. "For when the agent is there, the patient *becomes* something, but when 'states' are there, the patient no longer becomes but already *is*—and 'forms' (i.e. 'ends') are a kind of state".[19]

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[14] *Phy.* II, 7, 198a, 26.

[15] *Ibid.*, 1. 27: " . . . the primary source of movement is the same in *species* as these (i.e., as formal and final cause), for man generates man."

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[16] For a learned treatment of these relations of nature as efficient cause, form and end confer Auguste Mansion, *Introduction à la Physique Aristotelicienne,* Louvain, 1913), praesertim, ch. VI, "La Causalité et l'Activité de la Nature," pp. 122-168.

[17] Cf. *Met.* VIII, 8.

[18] *De Gen. et Corr.* I, 7, 324b, 14ff: *"Εστι δε τὸ ποιητικὸν αἴτιον ὡς ὅθεν ἡ ἀρχὴ τῆς κινήσεως. τὸ δ' οὗ ἕνεκα, οὐ ποιητικόν.*

MATTER AND FORM

Reserving further remarks on Aristotle's concept of the nature of active or efficient cause for the following chapters, we shall now consider more in detail the nature and relationship of Aristotle's material and formal causes—a study which is necessary for the understanding of, and eminently suited as an immediate avenue of approach to efficient causality.

Matter and form in aristotelian physics and ontology is intimately bound up with the notion of change and with that universally bifurcating principle known as the potency-act couplet. Aristotle's hylemorphic theory is but an adaptation or application of the potency-act principle to the world of corporeal substances and is an attempted solution of the thorny problem of change. It was only in the formulation of this dichotomy that Aristotle found satisfactory answer to the problem presented by *ens mobile*. The world of sensible phenomena forced upon him the realization that beings were not static. He saw them ceaselessly acquiring perfections they had not, losing those they had. Bodies are generated, increase and diminish in size, change their figures, become more or less dense, resilient, more or less hot, luminous, etc., finally perish and corrupt. An animal, a grain of wheat, an element, all these are subject to change. Aristotle saw everywhere about him change, movement, motion. It seemed so primordial, so universal that it was impossible to classify it in any supreme category. We have noted the reactions of Heraclitus and Parmenides to these phenomena. The former was so obsessed with them that he believed there was nothing static, nothing permanent. The latter confronted by the same phenomena, shut his eyes to their evidence because such a constant flux of things seemed incompatible with the principles of identity and non-contradiction and "rather than be false to what he believed to be the exigencies of thought and reason . . . preferred to refuse heroically the witness of the senses and denied the existence of change and multiplicity".[20] Faced by the same phenomena Aristotle adopted the common sense attitude of accepting the obvious, the data of sense experience, and proceeded to reconcile the fact of change with the principles of identity and non-contradiction by the application, as we have said, of the concepts of potency and act. We shall have occasion, below, to state more precisely the relation of these concepts when we discuss efficient cause as the principle of movement. It is sufficient to state here that when these concepts were turned upon the realm of corporeal substances, potency became matter and act became form—the two essential constitutive causes, intrinsic to a bodily nature. Unless bodies were composed of these two causes, it would be impossible to explain substantial and accidental change, it would be impossible to account for their properties and operations. They are extended, divisible, active yet one. They are capable of being multiplied individually, yet retain specific unity. They are subject to substantial changes manifested by different and often contradictory attributes and yet, for this there is an underlying permanent substratum in all. Consequently there must be in bodies two distinct principles, since one principle could not explain these different factors. There must be some intrinsic principle which forms the basis of extension, division, multiplicity, a permanent subject of substantial change. There must too be another intrinsic principle which is the basis of unity, activity, specific identity, and the successive phases of change. The former Aristotle calls matter, a passive inert principle, undetermined yet determinable, incomplete, potential, the root of extension, the support of substantial changes. The latter, form, an active determining completing term of substantial change. Neither one constitutes a body or substance by itself. Both are essential components of the material substance—the one, substantial potency (material cause) and the other substantial act (formal cause).

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[19] *Ibid.*, 1, 15-18.

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[20] Jacques Maritain, *Introduction to the Study of Philosophy* (tr. E. I. Watkin, N. Y.: Sheed & Ward, 1933), pp. 60-61

Material Cause

In the process of substantial change, the material cause may be regarded as being either primary or proximate, i.e., as being πρώτη ὕλη or ὕλη ἐσχάτη. In the latter sense it is already a substance, determined by a formal cause, but now proximately disposed, without requiring further preparation, to be united with another determinate form to become a new substance.[21] When it does so unite the proximate matter loses the formal cause by which it was previously determined. The latter cannot actually continue to inform the matter but must give way to the new substantial determination, for were it to remain there would be two substantial forms determining the same matter, constituting one substance, which is incompatible with its unity. In the sense of "primary matter", however, the material cause is not a substance in the strict sense of the word, for the reason that a substance characteristically exists alone, by and in itself, whereas prime matter necessarily exists bound up with another thing (i.e. with some form, however indefinite and amorphous it may be).[22] Nevertheless, prime matter *"is nearly,* and in a sense *is* substance," [23] because it *is* the substratum (sub-stare-ὑποκείμενον), even though completely indeterminate, which is receptive of generation and corruption.[24] "My definition of matter", Aristotle says, "is just this—the primary substratum (τὸ πρῶτον ὑποκείμενον) of each thing, from which it comes to be without qualification and which persists in the result".[25] Here we have a positive definition of prime matter. If, however, we regard it as pure indetermination, as preceding all elementary differences, as being without form or definite character, as being the center of indifference to all opposites and definite qualities, as the substratum which as yet possesses none of the determinations of being, in short, as pure impressibility and receptivity, then we have Aristotle's famous negative definition of matter as being "that which in itself is neither a particular thing, nor a certain quantity, nor assigned to any other of the categories by which being is determined".[26]

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[21] Aristotle implies this necessity of proximate matter in *Met.* VII, 4, 1044a, 15 ff.

[22] Cf. *De Gen. et Corr.* II, 1, 329a, 24 ff: "Our doctrine (as opposed to Plato's) is that although there is a matter of perceptible bodies (a matter out of which the so-called 'elements' come-to-be) it has no separate existence but is always bound up with a contrariety" a.v., it must always be informed by act, since of itself it is only pure potency.

[23] *Phys.* I, 9, 192a, 5.

[24] *De Gen. et Corr.* I, 4, 320a, 3-5.

FORMAL CAUSE

The formal cause is naturally correlative with the material cause. From what we have said of the latter the function of the former is quite clear. Like the matter, of which it is to be the determinant, it is not a substance in itself, though it does constitute a substance when united with the matter in the corporeal composite. Like the matter, it cannot exist apart from, nor prior to, the correlative of which it is to be the specificative. On both these points, Plato as we have seen, was in error when he insisted that they could exist as substances, separate from matter. Aristotle on the contrary placed these formal causes, not in a τόπος ὑπερουράνιος, but in the bosom of nature itself, the prime factors in its evolution, the dirigeants and, as it were, the immanent animators of the world. Thus, in substances already constituted as such, they become remote principles of action, efficient causes in these entities, and consequently there is a dynamic causality attributable to form, but to form, only insofar as it is realized in the individual. This function, however, is a *secondary act* of the forms. Their primary function, that is to say, their *first act* is their intrinsic determination of matter, viz., their function as formal cause of the essence. Precisely as formal causes, they are not active, nor are they efficient causes, because this would necessitate, as we have noted,[27] that they be active before they are in act and reason demands that they first exist or be in act before they become active or efficient causes.

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[25] *Phys.* I, 9, 192a, 31: *Λέγω γὰρ ὕλην τὸ πρῶτον ὑποκείμενον ἑκάστῳ ἐξ οὗ γίγνεταί τι ἐνυπάρχοντος μὴ κατὰ συμβεβηκός.*

[26] *Met.* VI, 3, 1029a, 20: *Λέγω δ'ὕλην ἥ καθ' αὑτὴν μήτε τι, μήτε ποσὸν μήτε ἀλλο μηθεν λέγεται οἷς ὥρισται τὸ ὄν.*

The presentation of the aristotelian concepts of final, material and formal causes is now before us in broad outline. Full penetration of this etiology, however, has yet to be made for the basic problem of change, of substantial becoming remains still unanswered, and would continue so, unless the causal theory became full-blown by an understanding of the nature and role of the efficient cause. The insufficiency of final causes to account for movement has already been touched upon.[28] The material and formal causes indeed offer a solution of the intrinsic constituents of material substance. But the coming-into-being of substance is yet unexplained. Aristotle says: "The existence of no substance is a self-generation".[29] It is at most a self-maintenance, once it is generated. Matter and form, then, are inadequate, "are not sufficient to bring things into being any more than they are adequate to account for the primary things".[30] Hence we must postulate the efficient cause to fill up what was lacking till now, in the elaboration of Aristotle's causal system.[31] With this background which was deemed prerequisite for an understanding of efficient causality, one is better able to approach the treatment of that important topic to which we presently turn.

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[27] See pp. 35-36, *supra.*

[28] See pp. 35-36, *supra.*

[29] *De Anima* II, 4, 416b, 17: cf. *De Gen. Anim.* II, 1, 735a, 14 "Nothing generates itself, though when it has come into being, it thenceforward increases itself." Cf. *De Motu Anim.* 1. 5, 700a, 34b, 3: "The earliest growth and alteration in the living creatures arose through another and by other channels, nor can anything possibly be the cause of its own generation and decay, for the mover must exist before the moved, the begetter before the begotten and nothing is prior to itself."

[30] *De Gen. et Corr.* II, 9, 335a, 32.

[31] We may say in this regard that Zeller (*Die Phil. der Griech.* II, 1, p. 330), Hamelin (*Le Système d'Aristote*, pp. 260-275) and Robin (*La Pensée Grecque,* pp. 342-343) have attempted an oversimplification when they reduce the four causes to material and formal.

CHAPTER IV

CONCEPT OF EFFICIENT CAUSE

1. DEFINITION

The phrase τὸ ὅθεν ἡ ἀρχὴ τῆς κινήσεως[1] which Aristotle uses to designate the fourth principle is sometimes varied to mean τὸ ὅθεν ἡ ἀρχὴ τῆς μεταβολῆς[2] as his attempts to distinguish strictly between κίνησις and μεταβολή fail. It is also called by many other terms[3] whose semasiology, however, is in every case reducible to the definition which is found in his philosophical dictionary (*Met.* IV). Efficient cause is that (cause) "whence is the first beginning of change or of rest."[4] Here obviously we have to do with definition by genus and specific difference. It is vastly important, then, since we are concerned with *Aristotle's* concept of efficient cause, to determine precisely what *he* meant by these words and *not* what *others* have extended them to mean. In other words we shall endeavor to ascertain exactly the interpretation that Aristotle must have intended them to have, and not any interpretation that might be given them.

Clearly Aristotle brings the efficient principle under the genus of cause, since τὸ αἴτιον is understood to have been intended to precede the phrase ὅθεν ἡ ἀρχὴ . . ." Therefore it belongs to that definite type of principiant which positively contributes being to another and on which that other is dependent. As a cause, it is essentially related to another, which, since the cause is *efficient,* we designate as the *effect* or that which is effected. From the point of view of the phenomenalistic approach to the idea of cause it may be objected that it is a *petitio principii* to say that cause as cause is essentially related to another entity and that efficient cause is essentially related to effect, at least, connotatively, *in obliquo,* or *in actu exercito.*[5] We need only emphasize the fact that causality essentially connotes a relation, containing necessarily the two ideas, cause and effect. And those things which are relative *per se,* Aristotle says, cannot be defined except by that to which they are related,[6] since every relative term is identical with being in a certain relation to something else,[7] and accordingly must be embraced implicitly at least in its concept.[8] Since, therefore, the idea of cause and that of effect are inseparable correlative ideas, one might just as easily picture the relation between the two *a posteriori* as well as *a priori,* and call it effectuality or "dependentiality" as well as causality. The term used in no way affects the relation, but only the point in view.

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[1] *Met.* I, 3, 983a, 30; *De Gen. Anim.* I, 1, 715a, 7.

[2] *Met.* V, 2, 1013a, 29.

[3] Thus:—*Anal. Post.* II, 11, 94a, 22: ἡ τι πρῶτον ἐκίνησε; *Phys.* II, 1, 192b, 21: αἰτία τοῦ κινεῖσθαι καὶ ἠρεμεῖν; *ibid.* I. 28: ἡ ἀρχὴ τῆς ποιήσεως; *De Gen. Anim.* I, 715a, 13: αἰτία κινουσα; *ibid.* II, 6, 742a, 29: ἀρχὴ κινητικὴ καὶ γεννητική (τὸ ποιητικὸν καὶ γεννητικον); *De Gen. Anim.* I, 21, 729b, 13: ποιητικὸν ὅθεν ἡ ἀρχὴ τῆς κινήσεως; *ibid.* 1, 15: ποιητικὸν καὶ κινουν; *Met.* VI, 4, 1044a, 35: κινοῦν; *De Gen. et Corr.* I, 7, 324b, 13 and *De Anima* III, 5, 430a, 12: τὸ ποιητικὸν αἴτιον. This latter perhaps best explains the well known translation "causa efficiens", "efficient cause".

[4] Met. IV, 2, 1013a, 29: τὸ (αἴτιον) ὅθεν ἡ ἀρχὴ τῆς μεταβολῆς ἡ πρώτη τῆς ἠρεμήσεως.

To continue, however, the analysis of the genus to which efficient cause belongs it must be conceded, that as a principle (under which genus, cause in general is, in turn, subsumed) it has a certain priority over its effect. Now what priority does Aristotle assign to efficient cause? From a careful study of efficient cause as the principle "whence is the first beginning of motion or rest", one is forced to draw the conclusion that the priority ascribed by Aristotle to efficient cause is more than a priority of nature. It is in addition a temporal one. He was certainly not unfamiliar with the concept "priority of nature". In the *Categories,* after explaining the various senses in which the term is used he concludes: "Yet it would seem that besides those mentioned there is yet another. For in those things, the being of each of which implies that of another, that which is in any way the cause may reasonably be said to be, by nature, prior to the effect".[9] When, however, he comes to speak of efficient causes by way of movement, the implication is that there is always in addition to the priority of nature a temporal priority of cause to effect.[10] Whether Aristotle had a concept of efficient causes that were not such *per modum mutationis* and whether—in consequence of the supposition that he did conceive of such causes—he postulated as essentially requisite *only* a priority of nature, are questions that must be discussed later. For the present we are concerned with the precise signification attached to Aristotle's definition of *moving causes* and we are not warranted in concluding from this definition that he demanded of efficient causes only a priority of nature.

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[5] As opposed to direct knowledge of effect, not connotative, but *in actu signato.*

[6] *Topics* VI, 4, 142a, 28-32.

[7] *Topics* VI, 8, 146a, 36b, 5.

[8] *Topics* VI, 4, 142a, 32: διόπερ ἀναγκαῖον ἐν τῷ τοῦ ἑτέρου λόγῳ συμπεριειλῆφθαι καὶ θάτερον; cf. *Categ.* c. 7, 6a, 35 ff.

Having discussed the genus to which these moving causes belong, we have now to investigate the meaning of the remainder of the definition whereby efficient cause is specifically differentiated from other types of cause and from other things which might possibly be considered efficient causes—viz.—"whence is the first beginning of motion or rest".

"Whence (ὅθεν) distinguishes the moving cause from the final cause which, conceived as an end to be achieved by execution, is not a "whence" but a "whither", that "for the sake of which" (οὗ ἕνεκα). The latter, as a concept of the ideal order does influence the moving cause,—not by action, however, but rather by drawing out the efficiency of the active cause. The particle "whence" likewise differentiates the moving causes from the intrinsic causes, both material and formal. The former is that "out of which" (ἐξ οὗ), the latter, the determining element of the essence (τὸ τι ἦν εἶναι). They both cause by requiring union and therefore they suppose a prior cause uniting and changing them, *whence* their union results, since every union composites in Aristotle's opinion is founded on change. The particle "whence" in addition excludes privation which might be considered a cause. Privation, however, bespeaks not an origin, but rather a deficiency of a *terminus a quo,* and since in its own nature it is *not-being* [11] it cannot be termed a "whence" which supposes at least *being.*

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[9] *Categ.* 12, 14b, 10-23: He continues now to illustrate one of the many instances of this type of priority: "The fact of the being of a man carries with it the truth of the proposition that he is and the implication is reciprocal: for if a man is, the proposition wherein we allege that he is, is true and conversely, if the proposition . . . is true, he is. The true proposition, however, is in no way the cause of the being of the man, but the fact of the man's being does seem somehow to be the cause of the truth of the proposition, for the truth or falsity of the proposition depends on the fact of the man's being or not being." Cf. also *Phy.* VIII, 7, 260b, 17 ff; *Met.* IV, 5, 1019a, 1 ff.

[10] Thus e.g., *Met.* XI, 2, 1070a, 21 ff: "Moving causes exist as things preceding their effects." That this is a temporal precedence is confirmed by what he adds, " . . . but causes in the sense of definitions are simultaneous with their effects." He means here obviously, formal causes for he cites the example, "for when a man is healthy, then health also (formal cause) exists in him." See also *Anal. Post.* II, 16, 98b, 17 ff.

"The beginning" or commencement (ἡ ἀρχή) signifies that which in some way is the origin—in this case—of movement. Harper seems to think that this word "connotes a real influx into the effect and the dependence of the latter on its cause".[12] This, however, distorts the meaning of ἀρχή which, as Aristotle conceived it, is simply the origin from which anything proceeds from another, whether by dependence or not. The dependence of the effect on the cause, or the real influence of the latter on the effect is gathered, not from the word ἀρχή, but from the genus, τὸ αἴτιον, to which the moving cause belongs, as has been pointed out.

"The first" beginning (ἡ πρώτη ἀρχή) emphasizes the priority that efficient cause has in the *execution* or production of the effect over the other species of cause. While the final cause is the *first* in intention, it is the last in execution and is not therefore the source whence is the first beginning of change with respect to the effect. The causality similarly of the matter and form, in the effect produced by way of motion, is posterior to that of the agent. Although they themselves are called by Aristotle principles of the being of the effect,[13] they are not the primary sources in the coming to be of the product. Privation likewise is named a principle but it obviously is not that whence motion begins, for as we have said [14] in its nature it connotes a deficiency of a *terminus a quo* and really is not-being. Does the use of this word, *πρώτη* limit the application of the definition to the prime immovable cause and preclude its extension to secondary efficient cause? Does it exclude instrumental causes from the species of moving cause? These are questions raised and, answered affirmatively, are charges levelled against the accuracy of Aristotle's concept. But they are entirely without foundation. It is clear from even a casual study of Aristotle that both secondary causes and instrumental causes belong to the category of moving causes. This being so, it would be unintelligible why he would not be constrained to eliminate this particle from his definition if he did not feel that they too were causes whence movement *first* begins. Secondary causes, even though they themselves are moved, are nevertheless sources whence movement begins in those things on which they exercise their efficiency. In like fashion the instrumental cause is the prime principle of motion, ministerially even though not principally. We see then that although there are different orders of efficient causes, each order partakes of the same specific nature.

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[11] *Phy.* I, 8, 192a, 4, 5: "Privation in its own nature is *not-being . . . in no sense is*".

[12] Thomas Harper, *Metaphysics of the Schools* (London: McMillan, 1884), vol. III, p. 8.

In the words "of change or of rest" (*τῆς μεταβολῆς ἤ τῆς ἠρεμήσεως*) we have the conclusion of Aristotle's definition of efficient cause—perhaps the most controversial words from the point of view of essential accuracy, in the whole definition. It is imperative, therefore, that we elaborate the meaning of these words, as Aristotle employed them.

The philosopher attempted to draw a distinction between the word "change" (*μεταβολή*) and "motion" (*κίνησις*), and in several passages he firmly asserts that there are changes which cannot be called motion, notably, the changes that are involved in substantial generation and corruption.[15] The distinction between the two, however, frequently breaks down, and Aristotle uses the terms interchangeably, going so far as to call generation and corruption motions, where he previously had denied this characteristic of them.[16]

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[13] *Met.* XI, 2, 1069b, 33 ff.

[14] Cf. p. 44, and note 11.

Every change, according to Aristotle,[17] is from something to something as the word *μεταβολή* indicates, that is to say, it implies something prior, something posterior. Now he discovers only four possible alternatives or modalities of change, viz. from subject to subject, from subject to non-subject, from non-subject to subject, or from non-subject to non-subject. He immediately rules out the last since every change implies a pair of opposites and between non-subject and non-subject there is opposition neither by way of contraries nor contradiction. Thus it follows necessarily that there are actually only three kinds of change. Change from non-subject to subject, Aristotle designates as coming-to-be, the relation being one of contradiction. In like manner change from subject to non-subject is perishing or corruption, and here again the relation is one of contradiction. He goes on to say that neither becoming nor perishing constitute motion in the strict sense, precisely because of this relation of contradiction. Motion, *stricte spectata,* is found only in the change from subject to subject where the relation is that of contrariety. In this sense there are only three kinds of motion, viz. qualitative, which is alteration (ἀλλοίωσις), quantitative, which is increase or decrease (*αὔξησις ἢ θφίσις*), and local which is locomotion[18] (*φορά*). We have seen, however, that in the broad sense, generation and corruption, too, are motions.[19] What precisely then does Aristotle mean by the term? "Motion," he defines, "is the entelechy or fulfillment of what exists potentially, insofar as it exists potentially".[20] The potential itself cannot be motion for, that which is merely capable of having a certain size, quality, or place, or of being a certain substance, is not undergoing change. Nor yet can the actual as such be motion, since it is the term of motion, the point of rest as far as this particular motion is concerned. Motion then must be the process itself, the dynamic union of the two terms, the progressive actualisation of the movable *qua* movable. "The actuality of the buildable, as buildable," Aristotle says, "is the process of building. For the actuality of the buildable must be either this or the house.[21] But when there is a house, the buildable is no longer buildable. On the other hand, it *is* the buildable which is being built. The process then of being built must be the kind of actuality required," i.e. required by the notion of motion.

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[15] *Phy.* V, 1, 225a, 24 ff: "That which is without qualification 'not so-and-so' cannot in any sense be in motion: therefore it is impossible for that which *is not* to be in motion. This being so, it follows that 'becoming' cannot be motion for it is that which *is not* that 'becomes'." And again (225a, 36-b, 1) " . . . those (changes) which take the form of 'becoming' and 'perishing' that is to say, those which imply a relation of contradiction, are not motions." Cf. 225b, 10

[16] *Phy.* VIII, 7, 261a, 32 ff: "Every other *motion* or *change* (except local motion) is from an opposite to an opposite. Thus for the processes of *becoming* or *perishing,* the limits are the existent and the non-existent". More explicitly in *Phy.* III, 1, 201a, 10-15.

[17] *Phy.* V, 1, 225a, 1-20; cf. *Met.* X, 11, 1067b, 15-68a, 7.

From this it is evident that motion, *of its very nature,* demands an existing potential subject as a prerequisite. What this subject is, is plain, in accidental change, i.e. in changes of quality, quantity and place. It is the existing substance, already composed of matter and form, which perdures, unchanged in substance, throughout the processes of accidental changes, and is in potency to the acquisition of these new forms. The question of substantial change, however, change by way of generation and corruption, presents a more vexing problem. In these types of change there is unqualified coming-to-be or passing-away,[22] as opposed to qualified coming-to-be or passing-away. In the latter there is always a coming-to-be of something out of something substantial.[23] Thus A, an existing substance, comes to be healthy out of *being* ill, or ill out of *being* healthy, small out of *being* big, or big out of *being* small, etc. But in unqualified coming-to-be there is certainly no existing *substance* out of which it comes. Does this mean then, that substantial coming-to-be proceeds out of nothing pre-existing? Such a thought, Aristotle says, "more than any other, preoccupied and alarmed the earliest philosophers".[24] The Stagirite himself manifests the same alarm but his preoccupation with the question forced upon him the solution that substantial generation, as every other motion demands a pre-existing subject. The "unqualified not-being" out of which substances are generated, does not mean "what is not in any sense at all"—it does not signify therefore a universal negation of all forms of being so that what comes-to-be will do so out of nothing. Rather does it mean the negation of being in the sense of a primary term of the category in question, viz. substance—a negation of *substantial being* (οὔσια). Besides substantial being, however, there is *being in potency* which is ordained to substance, viz. the prime matter which, in the most proper sense of the term, Aristotle identifies with the substratum (ὑποκείμενον) which is receptive of coming-to-be and passing-away.[25] "In one sense", then, Aristotle says, "things come to be out of that which has no being without qualification: yet in another sense they come-to-be always out of 'what is". For generation necessarily implies the pre-existence of something which potentially 'is', but actually 'is not'."[26] This potential being, or matter is itself necessarily outside the sphere of coming-to-be. In other words, it is ungenerable and, for that matter, indestructible. For, if it came to be, something in turn must have existed as its primary substratum from which it should come and which would persist in the becoming. But this, as Aristotle points out, is its own special nature (viz. to be the primary substratum of becoming) and it would follow that it *is,* before coming to be, which is repugnant. Similarly, were it to cease to be, it would pass into the substratum again from which it came and we would be confronted with the absurdity of its ceasing to be, before it ceased to be.[26]

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[18] The accompanying diagram perhaps represents more graphically the distinction between change and movement and the kinds of movement.

- Μεταβολή
  - *ἐξ ὑποκειμένου εἰς ὑποκείμενον—*
    - *κίνησις κατὰ τὸν ποιον—ἀλλοίωσις*
    - *κίνησις κατὰ τὸν ποσον—αὔξησις ἢ φθίσις*
    - *κίνησις κατὰ τὴντοπον—φορά*
  - *ἐξ ὑποκειμένου εἰς μη ὑποκείμενον—φθορά*
  - *οὐκ ἐξ ὑποκειμένου εἰς ὑποκείμενον—γένεσις*

[19] See p. , n.

[20] *Phy*. III, 1, 201a, 10: *ἡ τοῦ δυνάμει ὄντος ἐντελέχενα ᾗ τοιοῦτον κίνησίς εστιν.*

[21] Aristotle eliminates the third alternative, viz. the potential, for the reason stated above—since what is merely potential is not yet in motion, is not yet "in via" towards the actualization of the potency.

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[22] By the term "unqualified" (μὴ κατὰ συμβεβηκός) coming-to-be Aristotle means substantial generation, as opposed to "qualified" (κατὰ συμβεβηκός) coming-to-be which is accidental change. Similarly "unqualified" passing-away is equivalent to substantial corruption.

[23] *De Gen. et Corr.* I, 3, 317a, 34 ff.

[24] *Ibid.*, I, 3, 317b, 30.

[25] *De Gen. et Corr.* I, 4, 320a, 3-5.

We see then that, in order that there be motion it is absolutely indispensable that there be a subject of motion and in substantial generation, this subject must be the ungenerable substratum called matter, whose essence is to be pure potentiality, which has not in any relation become actuality.[28]

With respect to the concept "rest", which Aristotle applies only to that "which can be moved", a.v. to that "which is naturally designed for and capable of motion", even though "it is not in motion when, where and as it naturally would be"[29] and which he defines as "the negation of motion in that which is capable of admitting motion",[30] the same principle holds true. That is to say, "rest", too, presupposes a subject or substratum, just as "motion" does. Not only does it require a subject, but, what is more, in the aristotelian physics, it supposes a previous process of change or mutation,[31] which is arrested. Just as motion then is the transition into actuality of what is potentially in motion, so rest is the transition into actuality of a movable thing that is potentially at rest. The actualisation of the potency, in either case, is, and can only be, attributable to the efficient or moving cause. Neither the potential subject nor the form or act to which it is ordained can be responsible for the motion itself—not the potential subject, since, as potential it can only be moved by that which is in act[32]—not the form since, prior to the movement of which it is the term, it is inexistent. There must be, therefore in addition to these two terms, a being in act, which initiates the movement.[33] Thus Aristotle summarily describes movement in all its essential features when he says: "Everything that changes *is* something and is changed *by* something *into* something. That by which it is changed is the immediate mover, that which is changed, the matter and that into which it is changed the form.[34]

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[26] *De Gen. et Corr.* I, 3, 317b, 16ff.

[27] *Phy.* I, 9, 192a, 28 ff: ὥς δὲ κατὰ δύναμιν (ἡ ὕλη) οὐ καθ' αὑτό (φθείρεται), ἀλλ' ἄφθαρτον καὶ ἀγένητον ἀνάγκη αὐτὴν εἶναι. Εἴτε γὰρ ἐγίγνετο, υποκεῖσθαι τι δεῖ πρῶτον, τὸ ἐξ οὗ ἐνυπάρχοντος: τοῦτο δ'ἐστὶν αὐτὴ ἡ φύσις, ὥστ' ἔσται πρὶν γενέσθαι . . . Εἴτε φθείρεται, εἰς τοῦτο ἀφίξεται ἔσχατον, ὥστε ἐφθαρμένη ἔσται πρὶν φθαρῆναι.

[28] Cf. *Phy.* I, 6-10.

[29] *Phy.* V, 2, 226b, 12 ff.

[30] *Ibid.*, l. 15.

2. RESTRICTION OF DEFINITION TO MOVING CAUSES

It is clear, then, that when Aristotle defined the moving cause as that whence is the beginning of movement or rest, he had in mind only efficient causes which suppose matter or a subject on which to exercise their activity. To attempt to apply this definition then to the causality of an agent which has no need of a subject on which it exercises its action (and the only case of this kind known to us is the creative activity of God) is to force upon it an interpretation that is utterly foreign to the words as Aristotle conceived them, and to strain analogy to its breaking point. Yet this precisely is what Harper has done when he says that "the definition of Aristotle is analogously attributable to the Creator in relation to His act of Creation".[35] Creation which is the production of a thing "ex nihilo praeexistente", (that is, the production of the whole being itself), by the first Cause of being, is not motion, no matter, as St. Thomas says, whether one says that this emanation is from eternity or not.[36] Such a production cannot be motion in any univocal nor even analogous fashion. The Angelic Doctor with the acumen characteristic of him recognized that the terms expressive of the acts of motion and creation were equivocal in meaning. Thus he says: "Et sic fieri et facere *aequivoce* dicuntur in universali rerum productione et in aliis productionibus".[37] It is true that in a passage, which perhaps represents the more mature judgment of St. Thomas (*S. T.* Ia Pars q. 45, a. 2, 2m: cf. *Contra Gent.* II, c. 18:)he does say that creation is mutation of a certain kind, but he adds the words "secundum modum intelligendi tantum", which is, as it were, a concession to the weakness of the human intellect which cannot conceive of creation, save after the manner of a mutation.

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[31] *Phy.* VIII, 251a, 25 ff: "(that which) is at rest must previously have been in a process of change".

[32] Cf. *De Anima* II, 5, 417a, 17; *ibid.,* 417a, 6-9.

[33] *De Gen. et Corr.* II, 10, 337a 17-20: " . . . if there is to be movement . . . there must be something which initiates it." Aristotle clearly identifies the initiating cause with the agent. Cf. praesertim, *Met.* VII, 6, 1045a, 30-33: "What then causes this—the reason why that which *was* potentially *is* actually—except, in the case of things that are generated, the agents? For there is no other cause of the potential sphere's becoming actually a sphere . . . " And in 1045b, 21 he concludes: "Therefore there is no other cause here unless there is something which caused the movement from potency to actuality". Cf. *Met.* XI, 6, 1071b, 28 ff.

[34] *Met.* XI, 3, 1069b, 37-1070a, 2; cf. also *Met.* VI, 7, 1032a, 12 ff.

Fearing the vulnerability of his position in this matter, the author of the *Metaphysics of the Schools* makes the reservation that "even if change is not analogously predicable of creation, surely rest or accomplishment is".[38] Here again, however, is a forced interpretation, for as we have pointed out, the term "rest" for Aristotle presupposed a previous process of change which is entirely wanting in the concept of creation.

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[35] *Metaphysics of the Schools*, vol. III, p. 9.

[36] *In Phy.* VIII, 1. 2 (Vivès edition): "Productio totius esse a causa prima essendi non est motus, sive ponatur quod haec rerum emanatio sit ab aeterno sive non". Cf. *ibid.*, V, 2; *S. T.* I, 46, 1, 5m; 104, 1, 4m.

[37] *Ibid.*

[38] *Op. cit.*, p. 9.

In any case, the point at issue is not the possible extensions to which the definition of Aristotle "a parte post" can be forced, but rather what the Philosopher himself intended or implied in his definition. For this it is necessary to get at the mind of Aristotle, as we have attempted to do, and to judge impartially and dispassionately its contents. Such a sober analysis will undoubtedly force one to the conviction that in his definition of efficient cause, Aristotle evidently had in mind only those natural efficient causes which always act through motion or mutation.[39] In both the second book of the *Physics* and in the fourth book of the *Metaphysics* where Aristotle treats at length of efficient cause, he insinuates that its definition can be extended to every kind of efficient cause. From what has been observed, however, apropos the meaning of the terms used, it seems that the definition fails in essential accuracy since it is seriously open to the objection voiced by Suarez that it is not capable of being extended to the causality of God, the efficient cause *par excellence,* in the creation of the world.[40] That this deficiency is attributable to Aristotle's ignorance of the concept of creation, appears, in the light of critical studies, to be more of a certainty.

3. Lemma on Creation

Because of its bearing on the definition of efficient causality, it will not be amiss to discuss here briefly the varying opinions as to Aristotle's position in the question of creation. At one extreme, there is the opinion of an authority such as Zeller who maintains that the concept of a creative cause was as foreign to the Stagirite's thought as it is contrary to his explicit declarations,[41] that the Philosopher was precluded from conceiving or asserting the creating of the world by his conviction of its eternity,[42] that creation, moreover, is incompatible not only with the assertion that ποιεῖν and πράττειν are not attributable to God, but likewise with the principle, "ex nihilo nihil fit".[43] At the other extreme is the position of St. Thomas himself. He does not go so far as to say that Aristotle speaks, in any place, explicitly, of creation,[44] but he does aver that it is contained implicitly not only in the principles, but even in the conclusions at which the Philosopher arrives.[45] He not only proves that the

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[39] Cf. Franciscus Suarez, *Metaphysicae Disputationes,* XVII, sec. I, n. 5 (*Omnia Opera Francisci Suarez*—Vivès ed.—1866, vol. XXV): "Si Aristotelis mentem inspiciamus, videtur quidem solum definivisse causam efficientem naturalem quae semper agit per motum vel mutationem."

[40] *Ibid.,* n. 4: " . . . videtur illa definitio non convenire primae causae efficienti secundam primam ac potissimam efficientiam ejus quae est per creationem;—quia creatio non est mutatio."

[41] Thus, Edward Zeller, *Die Philosophie der Griechen,* Teil II, Abt. 2, p. 379, footnote 2: " . . . dem Philosophen . . . Spekulationen unter-

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schoben werden, *die seinem Gedankenkreis ebenso fremd sind, wie seinen bestimmten Erklärungen.*" Among others we may cite Charles Werner (*Aristote et l'Idéalisme Platonicien,* Paris, Alcan, 1910), L. Rougier (*La Scholastique et le Thomisme,* Paris, Gauthier-Villars, 1925) and Gustaf Kafka (*Aristotles,* Reinhardt, 1922) as supporting Zeller. Kafka sums up his position in the words, "Der Begriff einer Schöpfung aus dem Nichts ist . . . dem autochthonen griechischen Denken durchaus fremd" (*loc. cit.,* circa p. 33).

[42] *Ibid.,* p. 380 (footnote continued from p. 379, v.f.): "Die Annahme einer Schöpfung musste Aristoteles schon wegen seiner Lehre von der Ewigkeit der Welt ferne liegen."

[43] *Ibid.,* (cont.): "sie (d.h. die Annahme einer Schöpfung) hatte sich aber auch mit der Behauptung, dass der Gottheit weder ein ποιεῖν noch ein πράττειν zukomme, so wenig vertragen, als mit dem Grundsatz, dass nichts aus nichts entstehen könne."

[44] On this point, it seems, all agree, even those critics most congenial to the philosopher. Thus, J. Maritain: "La pensée grecque . . . n'est pas parvenue au concept explicite de création" (*Les Lettres,* June, 1929, p. 99); R. Garrigou-La Grange: "(Aristote) ne s'est pas élevé à l'idée de création (à la production de tout l'être ou de l'être en tant qu'être des choses)." (*Dictionnaire Apologétique de Foi Catholique,* art. "Dieu", col. 1037); H. Meyer: "Es darf als gesichertes Forschungsresultat gelten, dass Aristotles weder ein Welt-schöpfung noch eine Weltbildung . . . gekannt hat" (cf. *Beiträge zur Geschichte der Philosophie und Theologie des Mittelalters*—Supplement Band III, 1935, "Thomas von Aquin als Interpret der aristotelischen Gotteslehre", p. 682); R. Jolivet: "Il y a un fait qui est bien acquis: c'est qu'Aristote n'a jamais parlé explicitement de création" and again "nul texte formel, pas même une fugitive allusion, touchant l'acte createur." (cf. "Aristote et la Notion de Création," in *Revue des Sciences Philosophiques et Théologiques,* vol. XIX, 1930, pp. 209 and 233).

[45] This is the position supported by authorities as A-D Sertillanges,

principles, "ex nihilo nihil fit" suffers no violation by the supposition of creation "ex nihilo" but also that the latter supposition is in no way inconsonant with the doctrine of the eternity of the world,[46] and in numerous passages throughout his works, he asseverates that Aristotle as well as Plato had arrived at the consideration of the universal cause of all things on which they depend not only for their movement but for their very being.[47] Among the texts of the Stagirite, which are cited by the Angelic Doctor in confirmation of his position, the one most frequently alluded to is found in the lesser Book One (Ia) of the *Metaphysics* (Chapter 1, 993b, 26-31) and it reads as follows: "The principles of things which eternally exist are, of absolute necessity, sovereignly true for these (i.e. the principles) are not merely

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S. Thomas d'Aquin (Paris, Alcan, 1912), Franz Brentano, *Aristoteles Lehre vom Ursprung des Menschlichen Geistes* (Leipzig, Veit, 1911) and *Aristotles und seine Weltanschauung* (Leipzig, Von. Quelle und Meyer, 1911), Bullinger, *Des Aristotles Erhabenkeit über allen Dualismus,* et al.

[46] Cf. praesertim, *Opusc. De Aeternitate Mundi.* Herein, among other proofs, St. Thomas notes that if the eternity of the world were naturally repugnant to its being created, then a recourse to the latter would have been the most efficacious way of disproving the former and St. Augustine would have been the first to avail himself of this proof since he sought in many ways to impugn the aristotelian theory. But not only did he not overlook the possibility of using this argument, but he is even forced to confess that in the fact of creation there is no intellectual repugnance to the eternity of the world. (cf. *De Civitate Dei* X, c. 30). See also *S. T.* I, 46, 2c and 1m. As to the principle, "ex nihilo nihil fit", St. Thomas proves that this is valid in respect of particular productions by finite agents who act through motion and require an existing subject on which to act. In the case, however, of the universal production of the whole being by the first principle of being no pre-existing subject is necessary. Even here, nevertheless, the principle is not violated for such production is not a motion or a becoming in the proper sense. Cf. *In VIII Phy.* 2, n. 3, 4, 5, 6 (St. Thomas' response to Averrhoes' objection).

[47] E. g., speaking of Aristotle's opinion on the cause of the heavenly bodies which the latter felt to be incorruptible, St. Thomas remarks: " . . . etsi sint incorruptibilia, tamen, habent causam, *non solum quantum ad suum moveri,* ut quidam opinati sunt, *sed etiam quantum ad suum esse, ut hic Philosophus expresse dicit*" (*In II Met.* 2, n. 295). Cf. *In II Sent.* 1, 1, 5, 2nd 1m.

sometimes true, nor is there any cause of their being, but they themselves are the cause of the being of other things. *For, as it is in respect of being, so it is in respect of truth.*" [48] St. Thomas was convinced that by these words, Aristotle expressly affirmed that incorruptible things, such as the heavenly bodies (and a fortiori, corruptible things) have a cause not only as to their being moved, but also with respect to their very being.[49] But whatever be the force contained in the words themselves (and it must be conceded that St. Thomas has wonderfully elaborated their meaning and used them to telling advantage particularly in his fourth proof for the existence of God), it must be admitted that as a confirmatory proof of Aristotle's recognition of the universal production of being by God, it has become entirely emasculated. For the scholarly criticism of men like Brandis, Bonitz and Jaeger has proven quite conclusively that the book from which this text is drawn, certainly does not go back to Aristotle [50] and consequently is of no value in proving what Aristotle held. The several remaining texts which are alleged by St. Thomas to sustain his position that creationism was implied in the *conclusions* at which Aristotle arrived, need not be considered here.[51] It is sufficient to remark that they are all amphibological and consequently susceptible of a meaning different from that assigned by St. Thomas.

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[48] *Met.* Ia, 1, 993b, 26-31: *ὥστε καὶ αληθέστατον τὸ τοῖς ὑστέροις αἴτιον τοῦ ἀληθέσιν εἶναι. διὸ τὰς τῶν ἀεὶ ὄντων ἀρχάς ἀναγκαῖον ἀεὶ εἶναι αληθεστάτας. (οὐ γάρ ποτε ἀληθεῖς οὐδ' ἐκείναις αἴτιόν τί ἐστι τοῦ εἶναι ἀλλ' ἐκεῖναι τοῖς ἄλλοις). ὥσθ' ἕκαστον ὡς ἔχει τοῦ εἶναι, οὕτω καὶ τῆς ἀληθείας.* St. Thomas refers to this text explicitly in the following places: *In VIII Phy.* 2, Vivès, XXII, pp. 624b-625b; *ibid.*, 3, p. 633b; *In I De Coelo,* 21, Vivès, XXIII, p. 75a; *In De Causis,* lect. 3, Vivès, XXVI, p. 522a; *De Subst. Separ.* c. 3, Vivès, XXVII, p. 278a. And he uses the argument himself in *S. T.* I, 2, 3 (quarta via); *C. G.* I, 13; *In II Met.,* 2, n. 295.

[49] Cf. *In II Met.* 2, 295.

[50] Cf. Christian August Brandis, *Scholia in Aristotelam,* c. 3; Hermannus Bonitz, *Aristotelica Metaphysica;* Werner Jaeger, *Studien zur Entstehungsgeschichte der Metaphysik des Aristotles* (Berlin, Weldmannsche, 1912), pp. 114-118. Zeller expresses their opinion very emphatically in the words: "Das zweite Buch (a) eine Sammlung von drei kleinen, eher zue Einleitung in eine Physik als eine Metaphysik geeignetan und bestimmten Aufsatzen, *ruhrt gewiss nicht von Aristotles her." Phil. der Griech.,* Teil II, Abt. 1, p. 80, note 2, v.f.

This renders the thomistic position insecure and questionable. It by no means follows, however, that Zeller's position is vindicated. We have seen that St. Thomas long ago answered the apparent difficulties concerning the eternity of the world and the principle that nothing comes from nothing, with which the idea of creation is faced.[52] We shall see, moreover, that the one remaining difficulty that Zeller proposes, drawn from the texts of Aristotle in which efficient activity of both an external (*ποιεῖν*) and internal (*πράττειν*) nature seem to be denied of God is answerable by the context, in which these statements appear and by comparison with other texts.[53] One is driven then, it seems, to a middling position between these two extremes. Aristotle was ignorant of the fact of creation. He could not, therefore, have actually denied the theory with unequivocal declarations (bestimmten Erklärungen) as Zeller maintained nor yet could he have intentionally implied it in his conclusions, as St. Thomas affirmed. However, we may say, that not only is creation not incompatible with any of the aristotelian principles, such as the eternity of the world, the ingenerability of matter, the immovability of the Prime Mover, etc., but more, it is naturally deducible from the very principles of the Stagirite themselves; in fact it is a truth to which Aristotle would logically have been forced, had he thought through the implications in his own system, as St. Thomas well exemplifies in his commentary on the eighth book of the *Physics,*

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[51] For an extremely scholarly presentation of this whole discussion in general, and for an exegesis of the texts in question (*Met.* I, a, 1, 993b, 26-31; *Met.* III, 1, 1003a, 20-32; *De Coelo* I, 9, 279a, 22) the reader is directed to the article by R. Jolivet, "Aristote et la Notion de Création" which appeared in the *Revue des Sciences Philosophiques et Théologiques,* vol. XIX, 1930, pp. 5-50; 209-235. This soon appeared in book form along with another article on Plotinus and St. Augustine on the Problem of Evil, under the title, *Essai sur les Rapports entre la Pensée Grecque et la Pensée Chrétienne,* Paris: J. Vrin, 1931, pp. 3-79.

[52] Cf. *supra,* p. 54, note 46.

[53] We reserve the discussion of this difficulty to the next chapter where the efficiency of the first unmoved cause shall be treated.

lesson two.[54] For Aristotle then to have committed such an illogism as to fail to reach the natural conclusion from a premise was incredible to the Angelic Doctor. Rather than consider so egregious a failure, St. Thomas undertook to interpret in the most favorable light the few passages that seem to contain faint adumbrations of the expected doctrine. Herein is explained the congenial understanding and sympathy that the Doctor Communis brought to bear on the uncertain texts of the Stagirite.

To return to and conclude our discussion on the Aristotelian definition of efficient cause, it must be said, in the light of the foregoing, that the "master of those who know", as Dante characterized him, was ignorant of creation, (though he was definitely not precluded, by any of his own principles, from arriving at the concept). Consequently he certainly never intended that his definition of moving cause, as "that whence is the first beginning of change or rest" should be extended to the efficient causality of God in the creation of the world. What is more, it never fell within the ken of his consciousness that he needed to do so, in order to have a perfectly universal definition of efficient cause. The only efficient causes with which he was familiar were those that exercised their causality by motion, and his definition universally provided for these. His incomprehension of causes that act without motion renders his definition wanting in essential accuracy.

We now turn to the consideration of the precise nature of the causality of efficient cause in the philosophy of Aristotle.

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[54] Here the Angelic Doctor refers to a passage in the first book of Aristotle's *Physics* (c. 8, 191b, 17-27) wherein the latter speaks of productions and generations, of a particular and universal kind. We shall let St. Thomas describe the Aristotelian theory as he does in the place cited (*In VIII Phy.* 2, n. 5), where he extends Aristotle's argument to its logical conclusion: "Dixit enim ibi (*I Phy.*) quod si fiat hoc animal inquantum est hoc animal, non oportet quod fiat ex non animali sed ex non hoc animali puta si fiat homo ex non homine, aut equus ex non equo; si autem fiat animal inquantum est animal, oportet quod fiat ex non animali. Sic ergo si fiat aliquod particulare ens, non fit ex omnino non-ente: sed si fit totum ens, quod est fieri ens inquantum est ens, oportet quod fiat ex penitus non ente (si tamen et hoc debeat dici fieri; aequivoce enim dicitur ut dictum est)."

CHAPTER V

CAUSALITY OF EFFICIENT CAUSE

1. NATURE OF EFFICIENCY

Our study of Aristotle's concept of efficient cause has led us definitely to the conviction that what he had in mind was a cause that contributed to the being of another or influenced the existence of another by way of motion, in other words, a moving cause (*αἰτία κινοῦσα*), a cause which is responsible for the initiation of change, becoming, and the like. Motion, we have seen, is defined by the Philosopher as the fulfillment or entelechy of that which is potentially movable, to the extent to which it *is* movable or in potency,[1] the dynamic union between the merely potential on the one hand and the objective actuality on the other, a flumenal or kinetic process of actualization. In such a process, Aristotle notes that five factors enter:—(a) that which directly gives rise to or causes the motion, (b) that which is moved or in motion, (c) that in which the motion takes place, viz. the time, (d) that from which and (e) that to which it proceeds.[2] For our present purpose we need not consider the time since this is something really external to and dependent on the motion proper, being the measure or number of movement in respect of before and after.[3] All motion, then, is a process from something to something, of something by something. The terminus from which the motion starts is the form which the being, prior to change, possesses and which it is destined to lose in the course of the kinesis. From another viewpoint it may be regarded as the being, deprived of that to which it is proximately potential. The actualization of this potentiality by the acquisition of a new form is the terminus towards which the change tends. When this end is reached, motion ceases, and with it, actual efficient causality. Up to this point, however, there is exercised true efficient causality—a point brought out by Aristotle in a more complete description of motion as "the fulfillment of . . . potentiality . . . by the action of that which has the power of causing motion".[4] Thus it is that the Stagirite notes that everything that comes to be, comes to be by the agency of something and from something and comes to be something.[5] Consequently the designating and specifying characteristic of the moving cause can only be its agency or action by means of which it initiates and effects the change in question. Without such action which is the very essence of efficient causality there would be no motion; everything would remain in a passive, static state. Aristotle copiously illustrates this point, of which we need cite but two examples. "How", he says, "will there be movement if there is no actual cause? Wood will surely not move itself—the carpenter's art must act upon it; nor will the menses occur, nor the earth set itself in motion, but the seed must act on the earth and the semen on the menses".[6] Again, in the sphere of sense perception, the Philosopher affirms that the organs of sense would experience no sensations without external stimuli, since in themselves they are not in act, but in potentiality. Their role is analogously akin to the combustible which does not ignite without something to set it ablaze.[7] Everything then, which is acted upon or moved is acted upon by an agent which is actually at work.[8]

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[1] Cf. *Phy*. III, 1, 201a, 10; *ibid*., 2, 202a, 7, 13; VIII, 1, 251a, 9; *Met*. X, 9, 1065b, 34 ff.

[2] *Phy*. V, 1, 224, a, 34-b, 1: 'Επεὶ δ'ἔστι μέν τι τὸ κινοῦν πρῶτον ἔστι τι τὸ κινούμενον, ἔτι ἐν ᾧ, ὁ χρόνος καὶ παρὰ ταῦτα ἐξ οὗ καὶ εἰς ὅ. πᾶσα γὰρ κίνησις ἔκ τινος καὶ εἴς τι. (Carteron Edn.)

[3] *Phy*. IV, 12, 220a, 24, 25: . . . ὁ χρόνος ἀριθμός ἐστι κινήσεως κατὰ τὸ πρότερον καὶ ὕστερον.

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[4] *Phy.* III, 3, 202a, 14: *ἐντελέχεια (τοῦ κινητοῦ ᾗ κινητόν) . . . ὑπὸ τοῦ κινητικοῦ.*

[5] *Met.* VI, 7, 1032a, 13-14: *πάντα δὲ τὰ γιγνόμενα ὑπό τέ τινος γίγνεται καὶ ἔκ τινος καὶ τί.* Cf. *Met.* XI, 1069b, 36-1070a, 2.

[6] *Met.* XI, 6, 1071b, 28-31: *πῶς γὰρ κινηθήσεται, εἰ μηθὲν ἔσται ἐνεργείᾳ αἴτιον; οὐ γὰρ ἥ γε ὕλη κινήσει αὐτὴ ἑαυτήν, ἀλλὰ τεκτονική, οὐδὲ τὰ ἐπιμήνια οὐδ' ἡ γῆ, ἀλλὰ σπέρματα καὶ ἡ γονή.* The example of the action of semen on the menses is biologically inaccurate, though the principle holds true.

[7] *De Anima* II, 5, 417a, 6 ff: *δῆλον οὖν ὅτι τὸ αἰσθητικὸν οὐκ ἔστιν ἐνεργείᾳ, ἀλλὰ δυνάμει μόνον. διὸ καθάπερ τὸ καυστὸν οὐ καίεται αὐτὸ καθ' αὑτὸ ἄνευ τοῦ καυστικοῦ. ἔκαιε γὰρ ἂν ἑαυτό, καὶ οὐθὲν ἐδεῖτο τοῦ ἐντελεχείᾳ πυρὸς ὄντος.*

a. *Action and Proximate Source*

What then is action which constitutes a being an agent or moving cause? Nowhere has Aristotle attempted a strict definition of action—the reason obviously being that we are confronted with a primary concept which eludes definition since it is one of the supreme categories and therefore not to be distinguished by any difference from another species under a common genus. However, a descriptive definition may be offered according to the mind of the Stagirite. Action can only be the exercise of an active potency (ποιητικὴ δύναμις). A being is an agent only when it is actually moving another. But the reason why it in turn can become an agent is because it is possessed of a power or potency that renders it capable of the action in question.[9] Elucidation beyond this point on the *nature of action* has not been made by Aristotle. The power that is responsible for the action he describes, however, as the source of movement or change which is in a being other than that which is moved, or in the same thing *qua* other.[10] In the most manifest instances of this active potency, the subject of the power and the subject or being acted upon are distinct, as the potency to build is in the builder and not in the building. At times, however, it may happen that the change is effected by and in one and the same subject, but even here the active potency which brings about the change is rightly considered to be ἐν ἑτέρῳ ᾗ ἕτερον. Thus when a physician by his medical art cures a patient, the cure is the effect of an active potency in another *qua* other, that is to say, in the doctor. If, however, the doctor himself is ill and he uses his therapeutic skill on himself, then any cure of himself *qua patient* is due not to himself *qua* patient (since as a patient he is passive and therefore in potency to receive, not to effect the cure) but to himself *qua* medicus and thus the active potency even here is rightly reckoned to be in another *as* other.[11]

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[8] *Ibid.* 417a, 17: πάντα δὲ πάσχει καὶ κινεῖται ὑπὸ τοῦ ποιητικοῦ καὶ ἐνεργείᾳ ὄντος.

[9] *Phy.* III, 3, 202a, 16: κινητικὸν μὲν γὰρ ἐστι τῷ δύνασθαι, κινοῦν δὲ τῷ ἐνεργεῖν. Cf. *Met.* X, 9, 1066a, 30 ff.

[10] *Met.* IV, 12, 1019a, 15: Δύναμις λέγεται ἡ μεν ἀρχὴ κινήσεως ἢ μεταβολῆς ἡ ἐν ἑτέρῳ ᾗ ἕτερον . . .

b. *Action and Ultimate Source*

While the action itself is attributable to the supposit or substance, the potency, which is its immediate source is a property of the form. The latter is no mere static specificative of the being's existence. For in addition to being the entelechy or fulfillment of the subjective potentiality of the matter to which it comes, (which is its first act), it is also the *radix* of its potencies and a dynamic power-principle of its actions,[12] and this may be termed its second act. Ultimately it is the form of the agent which, through its potencies, is responsible not only for substantial and accidental changes in beings external to it, but also for various accidental modifications of its own being. An example drawn from the domain of human psychology may illustrate this abstract thought. The human soul is not merely a subject of affections and affective states induced from without by stimuli and agents extrinsic to it, but actually, as experience shows, initiates movements within itself through its resident active potencies. Ideas, opinions, judgments, simple velleities, volitions and the like are all the effects, immanent to be sure, of actions instituted and elicited by the soul endowed with the faculties of intellect and will. Scarcely at any moment are they quite the same. Ceaselessly they come and go, making way for yet others, and bespeak, not external relations of the soul to other substances, but actual effects which have their efficient cause in the *ψύχη* itself, which remains substantially unchangel in the flux of becoming.

c. *Action and Passion:*

Motion is in the thing moved (*ἐστιν ἡ κίνησις ἐν τῷ κινητῷ*)

It is an artistotelian dictum that the motion which is the action of the form and potency in process of actualization is in the subject that is moved, for it is only on the movable that form and faculty or power are capable of acting. The one motion is then the entelechy or actualization of the agent which acts and the subject which suffers the action. "The actuality of that which has the power of causing motion", Aristotle says, " is not other than the actuality of the movable, since it must be the fulfillment of both". "A thing," he adds, by way of explanation, "is *capable* of causing motion because it *can* do this. It *is* a mover because it *actually* moves. But it is on the movable that it is capable of acting. Hence there is a single actuality of both alike".[13] The Philosopher was aware of the dialectical difficulty that this position involved and he strongly voices the objection that may be urged against him. How is it possible that there be one actuality for the two distinct beings, for agent and patient? It seems that the actuality of each *must* be different since the one is agency (ἡ ποίησις), and the other, patiency (ἡ πάθησις), and the outcome and completion the former is action (τὸ ποίημα) and of the latter, passion (τὸ πάθος). If both of these now are one and the same motion and if this motion is in the thing moved, these absurdities apparently ensue: (1) that the actuality of each will not be *in* each, since the actuality of the agent is in the patient;[14] (2) that there is one identical actualization for two things that are thought to be different;[15] from this it immediately follows (3) that action and passion are not in reality different and that consequently to act is the same as to suffer action, to teach the same as to learn. This conclusion would appear necessary since, if one were to say that the two are the same, one could not be teaching without at the same time learning, acting without suffering action.[16] To these serious self-posed difficulties, Aristotle succinctly made answer.

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[11] Cf. *ibid.*, p. 1019a, 17, 18; *Phy.* II, 1, 192b, 23 ff.

[12] Cf. Albert Lang, *Das Kausalproblem,* p. 96: "Seine (d.h. Aristoteles) Entelechien sind keine starren Seinswesen, sondern substantielle Kraftsprinzipien, die sich von innen heraus entwickeln."

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[13] *Phy.* III, 3, 202a, 15 ff.

[14] *Phy.* III, 3, 202a, 31 ff: εἰ δ' ἄμφω ἐν τῷ κινουμένῳ καὶ πάσχοντι καὶ ἡ ποίησις καὶ ἡ πάθησις, καὶ ἡ δίδαξις καὶ ἡ μάθησις δύο οὖσαι ἐν τῷ μανθάνοντι, . . . μεν ἡ ἐνέργεια ἡ ἑκάστου οὐκ ἐν ἑκάστῳ ὑπάρξει . . .

[15] *Ibid.* 202b, 1: ἄλογον δύο ἑτέρων τῷ εἴδει τὴν αὐτὴν καὶ μίαν εἶναι ἐνέργειαν.

[16] *Ibid.* 202b, 2: καὶ ἔσται (ἡ αὐτὴ καὶ μία ἐνέργεια δύο ἑτέρων τῷ εἴδει)

(1) It is not absurd that the actualisation of one thing should be in another. Teaching is indeed the act of one with the ability to teach, but the operation must be performed on some patient. It is not cut adrift from a subject but is the action of X on Y.[17] This action is a continuous and uninterrupted tending from the agent to the being acted upon. The difficulty arises from the failure to consider that when the action takes place the two are *in contact,* and hence at that time it is not repugnant that the actuality of the agent should be in the patient. The same act belongs to the agent as being *from* it and nevertheless is in the patient, as being received *in* it.

(2) There is nothing to prevent two things from having the same actualization, provided the latter is not described in the same way, and therefore has not the same connotation for each, but are related somewhat as the being in potency is related to the being in act.[18] As the latter are the same in subject but different in definition (*idem subjecto sed non idem definitione*), so action and passion are materially the same yet formally different.

(3) The response to the third objection follows logically from what has been said. It need only be emphasized that Aristotle does not say that action *is* passion, teaching *is* learning. Rather does he observe that action and passion, teaching and learning are the same motion materially considered, though each has a formality that makes them both extramentally and conceptually different. Such a distinction between beings that materially convene is by no means uncommon and the Philosopher does not want for illustrations that bear out his point. Thus the interval between 1 and 2, and 2 and 1 is the same yet the

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εἴπερ ἡ δίδαξις καὶ ἡ μάθησις ταὐτο καὶή ποίησις καὶ ἡ πάθησις, καὶ τὸ διδάσκειν τῷ μανθάνειν ταὐτὸ καὶ τὸ ποιεῖν τῷ πάσχειν, ὥστε τὸν διδάσκοντα ἀνάγκη ἔσται πάντα μανθάνειν καὶ τὸν ποιοῦντα πάσχειν.

[17] *Ibid.* 202b, 5: ἢ οὔτε τὸ τὴν ἄλλου ἐνέργειαν ἐν ἑτέρῳ εἶναι ἄτοπον (ἔστι γὰρ ἡ δίδαξις ἐνέργεια τοῦ διδασκαλικοῦ ἔν τινι μέντοι, καὶ οὐκ ἀποτετμεμένη, ἀλλὰ τοῦδε ἐν τῷδε).

[18] *Ibid.* 202b, 8: οὔτε μίαν δυοῖν τὴν αὐτὴν εἶναι κωλύει, μὴ ὡς τὸ εἶναι τὸ αὐτό, ἀλλ' ὡς ὑπάρχει τὸ δυνάμει ὂν πρὸς τὸ ἐνεργοῦν.

ratio is obviously diverse.[19] Again between two points there may be a common gradient, but since the angle of elevation is the inverse of the angle of declination the ascent of the gradient is clearly not the same as the descent neither in the abstract nor in the concrete.[20] Or, finally, there is one road between Athens and Thebes and yet the journey from Athens to Thebes is quite different from that of one who sets out from Thebes for Athens.[21] In summary then, Aristotle says that teaching is not the same as learning nor agency as patiency though both belong to the same subject, viz. the motion, for the "actualization of X in Y" (action) and the "actualization of Y through the action of X" (passion) differ in definition.[22]

d. *Action and Reaction*[23]

Closely associated with motion, action and passion is the aristotelian theory of action and reaction, a correct knowledge of which is extremely important. Failure to understand this theory has led many philosophers into the erroneous opinion that Aristotle's Prime Unmoved Mover was not in contact with, and consequently, not an efficient cause of the motion of the world. In a passage which evidently, from its context and from the examples cited, must be interpreted as being restricted (with an important exception frequently overlooked) to the physical action of one body upon another, Aristotle noted that the agent itself is acted upon by that on which it acts. "Thus", he says, "that which cuts is blunted by that which is cut by it, that which heats is cooled by that which is heated by it and in general the moving or efficient cause *(except in the case of the first cause)* does itself receive some motion in return; e.g. what pushes is itself in a way pushed and what crushes is itself crushed. Sometimes it is altogether more acted upon than is the thing on which it acts, so that what is heating or cooling something else is itself cooled or heated; sometimes having produced no effect, sometimes less than it has itself received".[24] Obviously then, the action is not all on one side and the passion on the other, but there is an interplay of efficient causality whereby the superior and more actively potential agent itself suffers by the resistant action or reaction of the patient. Such re-agency or reciprocal action is not verified in all moving causes. In other words there can be and actually are moving causes which suffer no reaction. It is not essential to motion as such that an agent also be acted upon. Aristotle affirms that there is nothing to prevent the first mover being unmoved.[25] That this is not uniquely, albeit especially, true of the first unmoved mover, viz., God, is clear from the fact that he immediately adds "indeed, as regards some 'first movers' this is actually necessary".[26] This clearly is the case for those active powers, whose forms are not embodied in matter,[27] that is to say, for immaterial forms or separated substances, such, for instance, as the spirits which, according to the mind of Aristotle, guide the movements of the heavenly spheres. It is only then those agents whose forms are immersed in matter that are liable to reaction. Here again, however, it is not all such agents that come under this principle, but those alone which have the *same matter*.[28] The word *matter* is taken here not in the strict sense of crass matter but in the broad metaphysical sense: it signifies the subject or substratum of a form whether substantial or accidental. By the expression the *same matter* Aristotle means that the matter of the agent must be receptive of the same contraries of which the subject acted upon is susceptible if it is to suffer a reaction.[29] An example will perhaps clarify the Philosopher's meaning. The art or healing possessed by a doctor produces health in a patient without itself being acted upon in any way by him who is being healed, whereas the medicament used, whether it be a potion or a solid is itself in some way acted upon.[30] The reason is that the art and the medicine have different matter. The art of medicine itself is a virtue of the practical intellect. Its 'matter' or subject then is the intellect itself, a spiritual faculty in man. In its action it suffers no diminution of perfection or potentiality (unless it happen accidentally by impairing to some extent the bodily faculties which it must necessarily use in the execution of its imperated acts; for the body, being of a like matter to the body acted upon, must suffer somewhat in its action).[31] The health-inducing qualities of the medicine contrariwise are present in matter similar to that of the body on which it acts. Thus it may generate heat, and in doing so lose something of its own thermal content or it may cool and simultaneously be heated.[32] So much a part of this theory of reciprocal action and passion is this similarity of matter that Aristotle does not hesitate to say "ex hypothesi", that if an active form embodied in matter could exist and act separate from matter it would not suffer by its action.[33] In summary then we may say that there is reaction only for those agents whose forms are immersed in the same matter as the subject acted upon, but not for separated forms nor for forms which though embodied in matter, have not *the same kind of matter.* Here, then, is an indisputable refutation of the position taken by certain philosophers—a position putatively but erroneously reflecting the mind of Aristotle—that the God of the Stagirite, being absolutely immovable, cannot act by contact and cannot, therefore, be an efficient cause of the motion in the world, since, it is supposed, all contact implies reciprocal action and passion.[34]

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[19] *Phy.* III, 3, 202a, 18.

[20] *Ibid.*, 202a, 19.

[21] *Ibid.*, 202b, 13, 14.

[22] *Ibid.* 202b. 19 ff: ὅλως δ' εἰπεῖν οὐδ' ἡ δίδαξις τῇ μαθήσει οὐδ' ἡ ποίησις τῃ παθήσει τὸ αὐτὸ κυρίως, ἀλλ' ᾧ ὑπάρχει ταῦτα, ἡ κίνησις. τὸ γὰρ τοῦδε ἐν τῷδε καὶ τὸ τοῦδε ὑπὸ τοῦδε ἐνέργειαν εἶναι ἕτερον τῷ λόγῳ.

[23] It is unfortunate that the treatise in which Aristotle undoubtedly dealt with this at length has been lost (περὶ τοῦ ποιεῖν καὶ πεπονθέναι). What is to be known of it must be gathered from the few sparsely scattered references which, it is believed, essentially reflect the mind of the Stagirite.

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[24] *De Gen. Anim.* IV, 3, 768b, 16 ff: . . . τὸ ποιοῦν καὶ πάσχει ὑπὸ τοῦ πάσχοντος, οἷον τὸ τέμνον αμβλύνεται ὑπὸ τοῦ τεμνομένου καὶ τὸ θερμαῖνον ψύχεται ὑπὸ τοῦ θερμαινομένου, καὶ ὅλως τὸ κινοῦν ἔξω τοῦ πρώτου ἀντικινεῖταί τινα κίνησιν, οἷον τὸ ὠθοῦν ἀντωθεῖταί πως καὶ ἀντιθλίβεται τὸ θλῖβον. ἐνίοτε δὲ καὶ ὅλως ἔπαθε μᾶλλον ἤ ἐποίησεν, καὶ ἐψύχθη μὲν τὸ θερμαῖνον εθερμάνθη δὲ τὸ ψῦχον, ὀτὲ μεν οὐθὲν ποιῆσαν, ὀτὲ δὲ ἧττον ἢ παθόν. The English version (Oxford Edn.) has translated the words ἔξω τοῦ πρώτου parenthetically as "except in the case of the first cause of all". The words "of all" are not warranted by the original Greek, and, in fact, in the light of other statements of Aristotle, is inaccurate. For as we shall see the prime unmoved mover is not the only efficient cause which is unaffected by its action on other beings. I have taken the liberty then, of slightly altering the translation.

[25] *De Gen. et Corr.* I, 7, 324a, 30; *ibid.*, 323a, 14.

[26] *Ibid.*, 324a, 31.

[27] *Ibid.* 324b, 4: ὅσα μὲν οὖν μὴ ἐν ὕλῃ ἔχει τὴν μορφήν ταῦτα μὲν ἀπαθῆ τῶν ποιητικῶν . . .

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[28] *Ibid.* 324a, 34: ὅσα γὰρ μὴ ἔχει τὴν ἀυτήν ὕλην, ποιεῖ ἀπαθῆ ὄντα . .

[29] Cf. St. Thomas, *loc. cit.*, I, lect. 20.

[30] *De Gen. et Corr.* I, 7, 324a, 35-b, 5.

[31] It is undoubtedly for this reason that in St. Thomas' commentary on Aristotle (*loc. cit.*, I, lect. 20) we find a more accurate interpretation of the latter's terse thought and example in the words: "primum movens potest esse immobile sicut medicus, qui non movetur ab aliquo, dum sanat, *nisi forte per accidens*".

[32] Aristotle, *op. cit.*, 324a, 34-b, 3.

2. CONDITIONS [35] OF EFFICIENCY

From our analysis of Aristotle's quaternary division of causes in general, and from our investigation into efficient cause and its cognate factors (such as motion, action and passion, potency and act), it is possible to gather the essential conditions or prerequisite and concomitant circumstances that are necessary for actual efficiency. These may be reduced to three headings: (a) Contact, (b) Disposition, (c) Absence of impediment or hindrance. We shall briefly run through these.

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[33] *Ibid.,* 324b, 19-22.

[34] J. Chevalier, *La Notion du Nécessaire,* Paris: Alcan, 1915, p. 166, n. 1: "Dieu est cause, non efficiente, mais finale du monde: le premier moteur étant nécessairement immobile ne peut agir par contact puisque tout contact implique action réciproque, donc passion aussi dans le moteur . . . ; Dieu meut le monde . . . comme objet d'amour par l'intermédiaire du mouvement du premier ciel." Cf. Zeller, *Die Phil. der Griechen,* II, 2, p. 374.

[35] The word 'condition' in this connection is to be understood as having the strict connotation attached to it by scholastic terminology, a meaning itself fixed by careful analysis of the aristotelico-thomistic concept of cause. That is to say it is contrasted with 'actual cause' and signifies that "which must be realized or fulfilled before the event or effect in question can be produced". (P. Coffey, *Ontology,* p. 358—New York: Peter Smith, 1938). We say with emphasis that it is contrasted with 'actual cause' or cause in act, because as we shall see potential causes are themselves conditions for the production of an effect. In this restricted meaning of the word condition, the event has real dependence on the existence and presence of such a circumstance and for this reason has

(a) *Contact:*

Since action is the actuality of X in Y and passion, the actuality of Y through the action of X, and, since, moreover, this motion which is the meeting place of the two is one, it is impossible that either of these occur unless there be contact between them.[36] The agent which acts by motion cannot exercise its causality unless there be a subject at hand to receive its action, nor can the potentiality of any subject be actualized but by an efficient or moving cause present to it. "One thing", Aristotle says, "cannot set up a motion in another without touching it, nor can a thing be affected in any way by another if it (the latter) does not set up motion in it".[37] This definitely rules out what is called *actio in distans,* the indemonstrable and inconceivable supposition that one being can act upon another through a vacuum without either

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frequently been confused with a "cause"; unlike a cause, however, the condition is either merely a negative circumstance, or if positive, has only an indirect influence on the production of the effect (*ibid.,* p. 358). It is to be noted that Aristotle and—we may add—St. Thomas, in no place have ever explicitly drawn this fine distinction. Nevertheless it definitely has its basis in their idea of cause. They both clearly recognized the existence of circumstances which were necessary for the exercise of efficient causality and yet which properly could not be called causes since they have no *direct* role or influence in the production of effects. These, we term 'conditions of efficiency'.

[36] *De Gen. et Corr.* I, 6, 322b, 21 ff: ἀλλὰ μὴν εἰ περὶ τοῦ ποιεῖν καὶ πάσχειν καὶ περὶ μίξεως θεωρητέον, ἀνάγκη καὶ περὶ ἀφῆς. οὔτε γὰρ ποιεῖν ταῦτα καὶ πάσχειν δύναται κυρίως ἃ μὴ οἷόν τε ἅψασθαι ἀλλήλων, οὔτε μὴ ἁψάμενά πως ἐνδέχεται μιχθῆναι πρῶτον.

[37] *De Gen. Anim.* II, 1, 734a, 3, 4: κινεῖν τε γὰρ μὴ ἁπτόμενον ἀδύνατον καὶ κινοῦντος μὴ πάσχειν τι ὑπὸ τούτου. Cf. *Phy.* III, 2, 202a, 7: διὸ ἡ κίνησις ἐντελέχεια τοῦ κινητοῦ ἧ κινητόν. συμβαίνει δε τοῦτο θίξει τοῦ κινητικοῦ. The English translation (Oxford Edn.) of this last sentence is misleading when it is rendered, "the *cause* of the attribute being contact with what can move". The word "cause" cannot be derived from the original. Contact for Aristotle is evidently a condition, not a cause of motion.

physical or virtual adjacency. Wherever then one thing is efficiently moved by another it is universally and ineluctably true that it must be 'touched' by the other.[38] Touching or contact, however, is used in an analogous signification. Properly, it applies only to those things which have 'position' and 'position' belongs only to those beings which also have 'place'.[39] And since extended bodies alone are strictly said to be in place, only such can properly touch one another, and their contact is mutual because when one body in space touches another it is also touched by that body. This bodily contact may be either immediate (when the bodily extremities are proximately contiguous, as when e.g. the fire burns the wood) or mediate (when there is an intervening body which touches the extremities of both the agent and the patient). In the latter case, the intervening body must be such that it can both receive and communicate the motion from the agent to the distant subject of action, otherwise the latter will not 'be touched' or affected in any way. Thus, Aristotle says: "Bodies are insusceptible" (i.e. incapable of receiving action from another) "so long as they are not in contact either with one another" (i.e. immediately) "or with other bodies which are by nature such as to act and suffer action," [40] (mediately). For example, "fire heats not only when in (immediate) contact but also from a distance. For the fire heats the air and the air—being by nature such as both to act and suffer action—heats the body." [41] Such mediate contact is generally called virtual.

So much for contact in the proper sense. But there is also another valid, although derived meaning for the word contact, and it applies to those cases where: 1) the agent is not properly in place, that is to say, where the agent is a form or acts by a form not bound up with matter and extension (separated spiritual substances); 2) the agent though accidentally in place by reason of a form embodied in matter does not possess the same kind of matter as the being acted upon.[42] In these instances the form is such as cannot experience reaction. The contact is said to be non-reciprocal and, on the part of the agent, virtual.

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[38] *Phy.* VII, 2, 243a, 3-6: *τὸ δε πρῶτον κινοῦν . . . ὅθεν ἡ ἀρχὴ τῆς κινήσεως, ἐστὶν ἅμα τῷ κινουμένῳ . . . τοῦτο γαρ κοινὸν ἐπὶ παντος κινουμένόυ καὶ κινοῦντος ἔστιν.* By the words *τὸ πρῶτον κινοῦν* Aristotle means obviously the proximate moving cause. It is only this which is immediately contiguous with the subject acted upon. Other efficient cause must be likewise in contact with the subject, but only through the medium of the proximate cause. Cf. St. Thomas, *loc. cit.*, lect. 3, n. 1.

[39] *De Gen. et Corr.* I, 6, 322b, 33 ff.

[40] *De Gen. et Corr.* I, 9, 327a, 2 ff.

[41] *Ibid.*

(b) *Dispositions:*

Contact alone is not a sufficient condition for efficient causation if there is to be motion beyond the contact.[43] In addition—and this scarcely needs comment—all causes including the efficient cause itself must be proximately disposed if actual efficiency is to take place. It may be felt that to designate these proximate dispositions as conditions rather than causes is to draw an exceedingly fine and subtle distinction, but it is absolutely necessary for precision of thought. It matters little to the understanding whether one prefers to call these dispositions 'causes in potency' instead of 'conditions'; the fact remains that they are really distinct from causes in act. For actual efficiency, the end must be that which *can* influence the moving cause, the latter must be that which *can* act upon a subject, the subject must be that which *can* receive a determined form, and these various potentialities are antecedent postulates for the *efficiency in act* of the moving cause. Aristotle clearly saw and affirmed this. The examples he cites refer particularly to the two causes, moving and material but the principle must be extended, in accord with his thought, to the final and formal causes. Thus for the efficient cause he says: If a piece of wood is to be split with an axe, the axe (instrumental efficient cause) must of necessity be hard; and, if hard must of necessity be made of bronze or iron,[44] or in the making of a bench if the operation of sawing is necessary, the saw must be

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[42] Cf. *supra*, p.

if there is to be motion beyond the contact.[43] In addition—and

[43] We say "if there is to be motion beyond the contact" for the contact itself may be a term of local motion as when two bodies are juxtaposed by a third moving cause.

[44] *De Part. An.* I, 1, 642a, 10 ff.

made of iron likewise.[45] As for the material cause, a proximate subjective passive potency is similarly required. One must distinguish when a thing is a potential subject of a particular form and when not. The earth is neither potentially a man nor a statue. It is potentially a man only when the material elements have already become a seed (semen) and even then it is not proximately potential as Aristotle says "for it must further undergo a change in a foreign (extrinsic) medium". Likewise it is potentially a statue only when it has become brass or some similar substance susceptible of the form of a statue.[46]

A further disposition that follows logically from an understanding of potency and act, and which is especially stressed by the Stagirite is antecedent dissimilarity between the agent and the subject of action, succinctly summed up in the expression 'like doesn't act upon like'. Two strong reasons support this axiom. In the first place if two beings were 'like' absolutely and in all respects without difference from one another, it is only logical to infer that neither would in any way be affected by the other, there being no reason why one of them should tend to act any more than the other. In the second place, granting the supposition that 'like' can be affected by 'like', it would follow that a thing could be affected by itself, obviously a repellent impossibility.[47]

On the other hand, it would be incorrect to assume that they must be entirely unlike. It is necessary rather that the dissimilarity be in the same genus. "For", as Aristotle says, "it is a law of nature that body is affected by body, flavour by flavour, color by color, and (so) in general, what belongs to any kind (genus) by a member of the same kind (genus)—the reason being that 'contraries' are in every case within a single identical kind, and it is 'contraries' which reciprocally act and suffer action".[48]

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[45] *Phy.* II, 9, 200a, 11 ff.

[46] *Met.* VIII, 7, 1048b, 35-49a, 18.

[47] *De Gen. et Corr.*, I, 7, 323b, 18-22: τὸ τε γὰρ ὅμοιον καὶ τὸ πάντη πάντως ἀδιάφορον εὔλογον μὴ πάσχειν ὑπὸ τοῦ ὁμοίον μηθὲν. τί γὰρ μᾶλλον θάτερον ἔσται ποιητικὸν ἢ θἄτερον; εἴτε ὑπὸ τοῦ ὁμοίου τι πάσχειν δυνατόν καὶ αὐτὸ ὑφ' αὑτοῦ.

[48] *Ibid.*, 323b, 32-324a, 3.

(c) *Absence of Impediment* [49]

Apart from contact and dispositions, it is necessary that there be a condition or state of things in which there is no obstruction to the causal action of the agent, for even though the agent and subject may be in contact and though both may be perfectly disposed and in proximate potency, the one to act and the other to receive action one can reasonably see that motion will not take place unless the action is free of hindrance or *obex*. For example, as Aristotle notes, what is cold may be potentially hot. A change takes place and it is (on) fire and burns, *unless something prevents and hinders it.*[50] Further explanation would only be laboring the obvious. We may make mention, however, of the part played by that which removes the prohibiting circumstance of action *(removens prohibens)*. Is it a cause in a true sense, of the action and motion that entrains? Aristotle answers in the negative. It is a real cause of the removal of the impediment to be sure, but of the motion which follows it is at best an accidental cause. Thus one who pulls away a pillar from under a roof or one who removes a stone from a wine-skin in the water is an accidental cause of motion,[51] the proper cause, according to Aristotle being in the one case the gravity (weight) of the roof and in the other the natural force of the water.[52] So much for the aristotelian conception of the conditions for efficiency.

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[49] Although the deficiency of any active potency on the part of an agent or of a passive potency in a subject—which deficiencies we have already designated as indispositions—might equally well be called impediments, since they hinder or make impossible actual efficiency, nevertheless the word 'indisposition' is customarily restricted to the absence of a quality within a subject that renders it incapable of acting or receiving action. The word 'impediment' on the other hand is applied to that circumstance or group of them, extrinsic to the potential cause and the potential subject which prevent both of these potencies from being actualized. It seems then that the absence of impediment is a class of the conditions for efficiency that merits treatment apart from the category of dispositions.

[50] *Phy.* VIII, 4, 255b, 6 ff; 255b, 18 ff.

[51] *Phy.* VIII, 5, 255b, 24: ὁ δὲ τὸ ὑφιστάμενον καὶ κωλῦον κινήσας ἔστι μὲν ὡς κινεῖ ἔστι δ' ὡς οὔ, οἷον ὁ τὸν κίονα υποσπάσας ἢ ὁ τὸν λίθον ἀφελὼν ἀπὸ τοῦ ἀσκοῦ ἐν τῷ ὕδατι. κατὰ συμβεβηκὸς γὰρ κινεῖ . . .

The question that next calls for consideration in the exposition of the Philosopher's treatment of moving cause is the actual existence of efficiency in finite beings, both material and immaterial, and especially (because it has been so controverted) in the Stagirite's God, the first unmoved mover.

3. Existence of Efficiency

It has been stated at the outset[53] that for Aristotle the law of being is the law of thought, and that there is an extra-mental realm of reality which is adequately and truly (even though not exhaustively) mirrored by man's cognitive faculties. The world of nature objectively exists apart from man and—what is vastly important—is accessible to him. It is presented to the senses in experience which is a condition precedent to thought. Sense perceptions themselves are the material out of which universal conceptions are derived by abstraction. These universal ideas depend for their truth on the reality of their object.[54] For

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[52] One may question Aristotle's interpretation of the physical phenomenon. No doubt it was because of his ignorance of the tractive force of gravitation in the earth that led him to attribute the proper cause of motion to the weight of the suspended body. Such ignorance is readily understandable (cf. *infra,* p. 76, n. 61). His principles, however, remain unchallengeable.

[53] See p. 5.

[54] Thus Aristotle says that the reason of the truth or falsity of a thing depends primarily on the being or not being of the thing. Cf. *Categ.* 12, 14b, 21, 22: τῷ γὰρ εἶναι τὸ πράγμα ἢ μή ἀλληθὴς ὁ λόγος ἢ ψευδὴς λέγεται. Cf. Zeller, *Die Phil. der Griechen,* II, 2, p. 802: " . . . er (Aristoteles) behauptet . . . dass sich alle unsere Begriffe auf das Allgemeine beziehen, und dass die Wahrheit unserer Begriffe von der Wirklichkeit ihres Gegenstandes abhänge." In similar vein Michelitch says: "Das Mass der Wahrheit ist die Wirklichkeit mit welcher die Erkenntnis ubereinstimmen muss." (Anton Michelitch, *Geschichte der Philosophie,* Graz, Styria, 1933, p. 74). In the light of this it is difficult to see how Chevalier can quarrel with Maritain for saying that the Greeks and especially Aristotle believed that every being is intelligible in the measure

Aristotle, therefore, there was no great epistomological problem. Man had a burning desire for knowledge, a thirst for philosophic truth (*το φιλοσοφίας διψῆν*)[55] which was not to be stultified. There was something to be known, the world of nature about him, and there was in him an innate ability and capacity to know, his own cognitive faculties. The percipient soul implies the perceptible, the cogitating faculty, the cogitable. The knowing subject is thus conceived only in relation to objects perceived or thought of, while these in turn in the act of knowing are presented as essentially relative to the subject.[56] This was the realistic approach which the Philosopher had with respect to the world of nature,[57] and it is never more apparent than in his certainty of the existence of efficient causes, a certainty all the more significant because the reality of efficiency was borne

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that it is. One fails to see how Chevalier can say: "c'est un pur et simple contre-sens . . . est précisément l'inverse de la formule d'Aristote. Aristote, comme tous les Grecs, pose *le primat de l'intelligible* . . . Les Grecs disent: seul ce qui est intelligible est (ce qui est inintelligible n'est pas) . . . Les Grecs plient le réel à leurs concepts: nous soumettons nos concepts au réel." (Cf. Jacques Chevalier, "A Propos de la Philosophie Bergsonienne," in *Les Lettres,* June, 1920, En Marge des Lettres, p. 199, n. 14).

[55] *De Coelo* II, 12, 291b, 26.

[56] Cf. George Grote, *Aristotle,* London, John Murray, 1872, vol. II, p. 240. See *De Anima,* III, 4, 429a, 17.

[57] We make no effort to rise to the defense, if defense it needs, of Aristotle's realism—a realism that is frequently characterized by that discrediting and deprecatory descriptive, "naïve". Our perspective is primarily metaphysical and ontological rather than epistemological. From the latter point of view, however, we may say in passing that Aristotle was of the unshaken persuasion that man could arrive at truth and certitude through his cognitive faculties when these faculties are functioning normally in a proper medium, with respect to their proper objects. Formal knowledge is notional identity of a faculty with its object (*De Anima,* III, 7, 431a, 1) and in this identity neither sense faculties (*ibid.,* II, 6, 418a, 10-16) nor the Nous (*ibid.* III, 6, 430b, 29) can be deceived. The former may fall into error in judging, e.g., what a colored thing is, or where the sonorous object is located, but in seeing color or hearing sound, neither eye nor ear is deceived. Similarly the intellect cannot err in regard to the form immersed in the individual which takes on universality by abstraction (*αφαίρεσις*).

in upon him in spite of the fact that it had been assailed by some of his predecessors, notably Heraclitus, Parmenides, and their followers. Parmenides, it has been observed,[58] had rendered useless in his system the concept of efficient cause by affirming that being alone existed, that there was no such phenomenon as becoming, and by denying the evidence of his senses and maintaining that motion was illusory. Heraclitus himself was forced to a similar conclusion, though he started off from a position diametrically opposed to Parmenides. For as we have noted,[59] in denying the reality of being and avowing the sole reality of becoming, he reduced motion to a flux of substanceless states, mere successions of sensible phenomena, with no abiding *being* or possible influx of one *being* on another. So he too made superfluous the efficient causal category, a position not unlike that of Humean phenomenalism. Now Aristotle, in reconciling the antithetical viewpoints from which the Eleatic and the Ionian started made an harmonious though unconfused union of being and becoming through his theory of potency and act. This enabled him to recognize and account for both change and efficient causation. The validity of sense perception convinced him of the reality of motion in the world about him and the difficulty that Parmenides had of reconciling this reality with the principle of contradiction was obviated by his introduction of the being-in-potency concept. The validity of intellection likewise assured him that motion was not mere temporal succession of sensible phenomena but a process wherein the Nous recognized the existence of realities, which alone could account for the dependence, which it perceived, of one phenomenon upon another viz. causes, and, among these causes, those which are our major concern, efficient causes. It was with these unalterable convictions and with this implicit reliance on the powers of cognition that Aristotle viewed the world of reality about him, and saw therein an harmonious concatenation of dynamic beings. These were seen to vary in virtues, powers, and grades of efficiency from the lowest form immersed in matter up to the Prime immaterial Mover of the universe, wherein the lower exists for the higher and each takes its place in the hierarchy of beings in fulfilment of the order imposed by the supreme ruler of all. "The world", Aristotle said, "is not such that one thing has nothing to do with another, but they are connected. For all are ordered to one end." [60] Now it is only on the supposition of efficiency that such connection and order is realized.

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[58] *Supra,* p. 17.
[59] *Supra,* p. 16.

The conception of the universe as a stage of interacting moving causes then, is so basic to Aristotle's cosmological outlook that it scarcely needs comment, save in the case of the Supreme Being itself about whose efficiency there has been some doubt. We shall first attempt then a rapid survey of the finite efficient causes [61] that the Philosopher recognized in the world about him before entering upon a more extended discussion of the efficiency of the Prime Mover, the importance of which merits special consideration.

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[60] *Met.* XI, 10, 1075a, 17-19: *καὶ οὐκ οὕτως ἔχει ὥστε μὴ εἶναι θατέρῳ πρὸς θάτερον μηθέν, ἀλλ' ἐστί τι. πρὸς μὲν γὰρ ἕν ἅπαντα συντέτακται . . .*

[61] This survey will necessarily entail the presentation of certain physical theories of Aristotle which lack accurate empirical foundations. He speculated as far as the limitations of intent observations could carry him. But though these observations were wide they were understandably not deep. It could scarcely be otherwise. It was a fault of his era and he was a victim thereof. Absence of controlled experiment and poverty of tools and instruments which make such experiments possible, must be sympathetically taken into account to mitigate the severity of our judgment on theories and hypotheses which at first glance appear false. As Zeller rightly points out, too often "we do not stop to think how utterly they were in ignorance of all our aids to accurate observation and how greatly this poverty of tools must have hindered every sort of helpful experiment. To fix time without a watch, to compare degrees of heat without a thermometer, to observe the heavens without a telescope and the weather without a barometer—these and the like were the tasks to which the natural philosophers of Greece had to set themselves" (*Die Phil. der Griechen,* II, 2, p. 250). And to expect that with all these handicaps Aristotle would be without his faults in regard to physical theories would be to expect an anachronism. Had he been without these errors, indigenous to his day, he would have been far more in advance of his time than, as a matter of fact, he was. He would have belonged to a much later period of human thought (*ibid.,* p. 249). Aristotle's errors may be said to be twofold: (1) those that derived from observations of reality that were perforce incomplete and insufficient as when he would

Finite Efficient Causes[62]

In the lowest realm of inanimate corporeal substances Aristotle, subscribing to the quaternary division of simple bodies that had been elaborated by Empedocles, posited the existence of the four elementary bodies (fire, air, water and earth) which exhausted the possible couplet combinations of the four elementary

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mistakenly attribute to motion a wrong efficient cause, e.g., air, as the instrumental efficient cause of the local motion of a projectile; (2) those that were the result of *a priori,* preconceived theories which he imposed on his world picture apart from and beyond the data of experience. This is noticeable especially in his astronomical theories, e.g., the priority of circular motion, the existence and even the number of the astral spirits guiding the movements of the heavenly bodies, the superiority and the living character of the matter of the planets and the like. The latter type of error is much more reprehensible than the former. Thus, though Aristotle recognized the distance of the heavenly bodies and the limitations of our senses which enable us to perceive very few of their attributes (*De Coelo* II, 3, 286a, 5 ff), this did not deter him from making dogmatic speculations concerning them. These errors of fact however do not militate against his general principles in any way whatsoever, nor should they render suspect the vast majority of his amazingly accurate observations. With full consciousness then of their falsity, they are presented simply to bear out the point that Aristotle recognized the existence of efficient causes in the world. The existence of efficiency in finite beings, however, need not stand nor fall on the truth or falsity of his physical theories.

[62] This term is used to embrace all efficient causes exclusive of the Prime Mover of the universe. They may conveniently be divided into material (i.e. natural or physical) and immaterial. The former are called "moved movers", the latter "unmoved movers". But it is important to note and emphasize the meaning of such expressions to avoid the confusion and misunderstanding that may arise. There is not so much difficulty with the term "moved". By it Aristotle means a being that is susceptible of any one of the four types of change that he has listed, viz., generation or corruption, change in quantity, quality (and this refers strictly only to sensible, bodily changes, v. *De Gen. et Corr.* I, 1, 314b, 18 ff; 3, 319a, 10ff; II, 4, 331a, 10) and place. Such changes the mover experiences from that which moves it or from that on which it acts or

qualities (fire being hot and dry; air, hot and moist; water, cold and moist; earth, cold and dry.)[63] These were regarded as the ultimate resolvable constituents of which all earth bodies were composed. To these he added a fifth element called aither (ether) which he believed to be the matter of the heavenly bodies,[64] a matter far superior to all earthly bodies in that, unlike them, it was thought to be ungenerable and incorruptible, unalterable and incapable of diminution or increase,[65] admitting only of spatial motion.

Of the motions which characterize the four earthly elements, locomotion is that to which they are all *passively* subject. No one of them then can efficiently and principally cause spatial motion either in itself or in another element, since they are lifeless, and spontaneous local motion is a property only of living beings. Consequently if the light elements (fire and air) rise, and the heavy (earth and water) fall it is because they are moved by something extrinsic to them.[66] There are, however, movements of which the elements themselves are efficient causes, movements such as combination, transformation or conversion and alteration. These are due to the active powers or qualities

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from both. On the contrary, by "unmoved" Aristotle means that which is not itself susceptible of such changes in their strict sense. Only immaterial agents are thus unmoved. They can initiate bodily movements or changes but cannot themselves suffer such changes as generation or corruption, increase or decrease, alteration (in the strict sense) or locomotion, unless it be accidentally, as when the soul is said to be moved locally by the movement of the body of which it is the form. However, it would be a mistake to suppose that by the term "unmoved" Aristotle meant to imply that immaterial beings or substances are absolutely immovable. In the wide sense of motion as denoting a dependence for action upon another even these so-called unmoved movers are movable. As we shall see, all such things receive motion from God. He alone is *absolutely* immovable.

[63] *De Gen. et Corr.* II, 3, 330a, 30-b, 8.

[64] *De Coelo,* I, 3, 270b, 1-25.

[65] *Ibid.,* 270a, 33-35.

[66] Cf. *Phy.* VIII, 4, 255b, 35 ff: " . . . light things and heavy things . . . are moved . . . by that which brought the thing into existence as such and made it light and heavy".

which reside in their forms. Aristotle notes that the fundamental active qualities are 'hot' and 'cold', the former implying a power which 'associates' things of the same kind, the latter a power which combines homogeneous and heterogeneous things alike.[67] Now since fire and air possess the quality of heat and earth and water the quality of cold, all of the elements are at least to some extent active, the grade of their efficiency being the measure in which they participate in these powers.[68] If this account of the primary earthly bodies seems puerile, we have only to stress the limitations of the science of Aristotle's day. Though the science was over-simplified, the philosophic principles stand firm and the fact remains that the Philosopher sought an explanation of the physical phenomena in active forms embodied in matter itself.

Passing on to the realm of animate corporeal substances (plants, brutes and men) the evidence for efficiency becomes clearer. In vegetative life we have to do with the vital processes of nutrition, growth and reproduction; in sensile life with self-initiated locomotion and sense cognition; in the life of man with the above-named phenomena and the perspicuous addition of the immanent actions of thought and volition (πράττειν) and the transient imperated actions of art (ποιεῖν). All of these without exception are unhesitatingly attributed by Aristotle to the substantial form ultimately and the active potencies proximately.[69] To be sure, the proper causality of the formal principle is formal, consisting in the specification of prime matter to a determined grade of being, constituting by direct communication a substance with it. But it is no mere static principle as we have pointed out.[70] Once it becomes "embowelled" as it were in matter it is regarded as the source of action, efficiency and finality. This efficiency is manifested both within and without the substance. Within, it fashions prime matter to its own ends bringing about nutrition, growth and decay in plants, and sensation in animals. Without, it causes the generation of beings like to itself, the plant organism producing plants, the animal generating animals and man begetting man.[71] Beyond these external reproductive actions, there is almost an infinitude of phenomena proper to living beings that bear witness to their efficiency and active powers. Thus, to cite only a few, the swallow builds its nest, the spider spins its web,[72] the hand strikes, the physician heals,[73] the carpenter makes the bench,[74] the builders construct the house,[75] the artist fashions the statue,[76] the musician plays,[77] the teacher instructs,[78] the counsellor directs.[79] These and many more that might be adduced testify to the existence in natural substances of attributes, functions or powers, sufficient to cause movement.

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[67] *De Gen. et Corr.* II, 2, 329b, 23-30.

[68] Cf. *De Gen. et Corr.* II, 4 & 5 for Aristotle's extended discussion of the activity of the elements.

[69] Cf. *Phy.* I, 7, 190b, 17 ff; II, 3, 195a, 8; II, 7, 198a, 24 ff; *De An.* II, 4, 415b, 8 ff; *De Gen. Anim.* II, 1, 732a, 3 ff; II, 6, 742a, 28; *Met.* VI, 9, 1034b, 27 ff; VIII, 8, 1049b, 12 ff; 1050a, 21; XI, 5, 1071a, 18.

[70] *Supra,* p.

The continuance, however, of activity upon this earth with its rhythmic succession of substantial principles, these in turn with their manifold actions, depend upon the uninterruptedness of the processes of generation[80] and corruption. But the continued processes of generation and corruption are, according to Aristotle, accounted for only by the movements of the two heavenly bodies nearest the earth, the sun and moon. So great is the influence of these bodies on all sublunary processes of generation that he calls the sun 'the Generator' (*τὸ γεννητικόν*)[81] and the moon, a principle which "contributes to all generation and development".[82] The sun by its annual inclination toward and declination from the earth in traversing its oblique orbit along the ecliptic or zodiac circle, and likewise, in its diurnal revolution about the center of the universe,[83] alternately approaches and retreats from the earth. In approaching it brings light and vital heat to the things of earth and thus causes generation. In retreating it withdraws this light and heat and so may be said to be responsible as a deficient cause for corruption.[84] Similarly the moon by reason of its connection with the sun and its participation in its light was believed to exercise a like though subordi- influence upon generation and corruption in its monthly revolution about the earth. These planets, however, are not sufficient of themselves to account for generation and corruption for their spatial movement is itself dependent on ulterior movers which in turn depend on the first unmoved mover. Thus Aristotle can say that it is God who is the ultimate cause of generation and corruption by making coming-to-be and passing-away perpetual through the eternal circular movements of the sun and moon.[85] This will become clearer as we turn to Aristotle's conception of the local movements of the planets and fixed stars.

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[71] *Phy.* II, 8, 199a, 30; VIII, 2, 252b, 24; *De An.* II, 1, 412a, 7ff; *De Part. An.* I, 1, 640b, 22 ff; *De Gen. An.* II, 4, 739b, 35 ff; *Met.* VIII, 8, 1050a, 8 etc., etc.

[72] *Phy.* II, 8, 199a, 26

[73] *Ibid.,* V, 1, 224a, 33.

[74] *Met.* XI, 6, 1071b, 30.

[75] *Phy.* I, 8, 191b, 3.

[76] *Ibid.,* II, 3, 195a, 5.

[77] *Met.* IV, 12, 1019b, 14.

[78] *Phy.* VIII, 4, 255b, 4.

[79] *Ibid.,* II, 3, 195b, 30.

[80] The word generation here is not to be understood in the restricted meaning of a generation of a living substance from a living substance of the same species but rather in a wide connotation of any coming-to-be of a new substantial form whether the composite that comes-to-be be living or not. It is in this broad sense that Aristotle has used the word throughout his tract περὶ γενήσεως και φθόρας (*De Generatione et Corruptione*). It would thus be applied not only to the generation of living substances but also to the coming-to-be of the elements and chemical compounds.

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[81] *De Gen. et Corr.* II, 10, 336a, 18.

[82] *De Gen. An.* IV, 10, 777b, 26: . . . *συμβάλλεται* (*ἡ σελήνη*) *εἰς πάσας τὰς γενέσεις καὶ τελειώσεις.* The influence of the moon on generation may appear to be a pure fantasy of Aristotle. If so, it is one that has persisted through the ages and even as late as the nineteenth century, a man of such scientific repute as Charles R. Darwin held to the belief that the moon is one of the primary causes affecting life on earth (cf. *Descent of Man,* Chapt. VI, n. 32, London, Murray, 1890).

[83] Aristotle, as is well known, subscribed to the Ptolomaic geocentrism which regarded the earth as the stationary unmoving center of a spherical universe, about which the planets revolve in concentric orbits. Cf. *De Coelo* II, 14.

[84] The sun's influence on earthly beings, far from being discredited has been confirmed by the progress of science, and the sun-cult of health-seekers is but a popular expression of facts confirmed by medicine and science in general that the sun's rays are indispensable for health and life. For a discussion of the energy imparted by the sun, its influence on plant life in the production of chlorophyll, in the phenomenon of heliothropism and the like, confer Charles Abbot, *The Sun,* D. Appleton & Company, New York, 1911, pp. 280-389.

As was noted, the Philosopher regarded the heavenly bodies as being made of a *quasi* divine matter, ungenerable, indestructible, unalterable.[86] The only motion, then, compatible with their being is spatial, and being of so perfect a nature they must have the most perfect spatial movement, viz. circular, for this alone of spatial movements admits of no contrary, returning upon itself without change.[86] Thus with rather specious arguments Aristotle sought to attach metaphysical necessity to certain phenomena of the sidereal universe as contemplated by Ptolemy, and in doing so became ensnared by the very error against which he warned others, viz. of having "certain predetermined views" and of trying "to bring everything into line with them." [87] Following Ptolemy he distinguished between the first heaven or sphere of the fixed stars and the spheres of the planets. The former was thought to be the crystal sphere inset with myriads of unmoving stars, the whole sphere revolving about the earth at the outermost part of the universe. Within this sphere and traversing concentric orbs were the seven planets (Saturn, Jupiter, Mars, Venus, Mercury, Sun and Moon). The motion of the first sphere was invariable and constant, that of the planets somewhat irregular. To explain this irregularity Ptolemaic philosophers had introduced the epicycles or smaller orbits in which each planet moved within and without the circumference of its dominant sphere. Thus sphere was added to sphere until Aristotle complacently declared as quite probable the existence of fifty-five different spheres for the planets leaving "the assertion of necessity . . . . to more powerful thinkers".[88] Since each sphere was a distinct motion and since, moreover, the stars themselves could not account for motion, not being self-moved, he felt constrained to ascribe each motion to an immovable mover, a substance in its nature, eternal and immaterial,[89] there being as many such movers as there are heavenly motions of the stars. The immovability however of these astral spirits must be properly understood as we have noted in the beginning.[90] They are unmoved precisely because, being immaterial, they cannot suffer the changes to which physical and material substances are subject, that is to say, they can experience neither generation, corruption, increase or decrease, alteration (in its strict signification) nor local motion proper (though they can be moved accidentally by the motion of the body with which they are in virtual contact). It does not follow however that they are absolutely unmoved or immovable. In reality they depend for the exercise of their virtue on the first unmoved mover. As Aristotle affirms, though circular motions be many, "their initiating causes must all of them in spite of their plurality, be in some way subordinated to a single originative source." [91] This can only mean that the first unmoved mover is the cause of the motion of all the other so-called "unmoved movers", and the Philosopher expressly says as much.[92]

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[85] *De Gen. et Corr.* II, 10, 336b, 31-35: . . . συνεπλήρωσε τὸ ὅλον ὁ θεός, ἐντελεχῆ ποιήσας τὴν γένεσιν.

[86] In addition it was believed that the heavenly bodies were animate, living beings (cf. *De Coelo* II, 12, 292a, 18). Without organs of locomotion they were however incapable of initiating spatial movement in themselves, depending for this, as we shall see, on separated immaterial movers. Their vital action apparently is restricted to the activity of pure thought and for this reason they are believed to be much more divine than man himself. (*Ethic. Nic.* VI, 1141b, 1)

[86] *De Coel.* I, 4, 270b, 31 ff.

[87] *De Coel.* III, 7, 306a, 7..

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[88] *Met. XI,* 8, 1074a, 1-10.

[89] *Met.* XI (Λ), 8, 1073a, 30-38. Concerning the belief in a plurality of immovable movers, Bonitz and especially Jaeger have made some interesting observations. Both are of the opinion that Book XI (Λ) of the present version of the Metaphysics is not the intended conclusion of this treatise but a work of rather early date in Aristotle's life. However, chapter 8 of Book XI is definitely known to be of a very late date in the Philosopher's life. Proof of this from internal arguments of style and content is indisputable (cf. Bonitz, *Comm. in Ar. Metaphys.,* p. 25; Jaeger, *Aristotle: the Fundamentals of his Development,* Engl. transl. pp. 342 ff.). It is not an organic member of the rest of Bk. XI. Drop it out and ch. 9 follows ch. 7 with perfect continuity of thought (Jaeger, p. 346). It is an insertion, to be sure authentically aristotelian, which has been made by the editors of Aristotle's remains. It deals with a final evolution of Aristotle's thoughts towards the end of his life (perhaps after 330 B.C.)—viz. the concept of a plurality of immovable movers to which the empirical findings of Calippus, the successor of Eudoxus had driven him. And yet he is not altogether sure of this plurality. For as Jaeger notes, a passage occurs within ch. 8 itself (1074a, 31-38) which destroys the possibility of a multiplicity of such movers. Jaeger's interpretation of this passage, proven linguistically to be utterly foreign to the rest of ch. 8 by reason of the change in style from the impeccable flowing language of the context to the jerky style of a note which interrupts the continuity of thought, is the following. It is a later and in fact a critical addition, for it implicitly contains the refutation that there are more than one unmoved movers. Aristotle must have noted this against his own proof of a multiplicity of such movers, as a piece of self-criticism. His faithful editors introduced it into the text and the

We have seen now that according to the mind of the Stagirite there exists in the world finite efficient causes, that these present to the mental gaze a hierarchy of dynamic beings ultimately dependent for their efficiency on God. We might add here that the existence of efficiency and the fact of such a hierarchy is by no means weakened by the aberrations into which he was led by false physical theories propped up by certain unsound metaphysical arguments, nor by the erroneous attribution of certain kinds of efficiency to substances or beings which in the light of scientific progress have been denied them. The vast majority of his observations are essentially accurate and unassailable and

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keenest thinkers of posterity have racked their brains to understand how an Aristotle could have involved himself in such contradictions (*l. c.*, p. 353).

[90] *Supra*, p. 78, n. 62.

[91] *De Gen. et Corr.* II, 10, 337a, 20-22: . . . *εἰ πλείους εἶεν αἱ κύκλῳ κινήσεις. πλείους μὲν, πάσας δέ πως εἶναι ταύτας ἀνάγκη ὑπὸ μίαν ἀρχήν.*

[92] *Phy.* VIII, 6, 259a, 12-13: . . . *ὁ πρῶτον τῶν ἀκινήτων ἀΐδιον ὂν ἔσται ἀρχὴ τοῖς ἄλλοις κινήσεως*

vouch for the existence of efficiency among the finite substances. The activity of such substances is in turn accounted for ultimately only by the motion of the Prime Unmoved Mover. This brings us to the more pressing problem. How precisely does this ultimate cause, on whom "depend the heavens and the world of nature,"[93] move,—as efficient or final cause or both?

Prime Unmoved Mover:

The question as to whether true efficiency is to be attributed to the first Mover is in reality an exceedingly controversial one. Authorities may be cited on both sides. Some maintain that Aristotle's Prime Mover moves the world only as its final cause, (*ὡς ἐρώμενον*).[94] Others on the contrary assert with equal firmness that the God of the Stagirite is not only the final cause but also the efficient mover of the cosmos. Upon impartial analysis of the arguments advanced by those who deny efficient causality to the Philosopher's Deity and of the responses made to them, it seems quite clear that the demurrers have misinterpreted the mind of Aristotle and that truth lay in the contrary position. Let us proceed to analyse their arguments. They may be reduced to two; viz. (a) the argument from the necessity of contact between mover and thing moved and (b) the argument that neither constructive nor practical activity is predicable of the first mover.

(a) The argument from the necessity of contact between mover and thing moved is expressed in this manner. It is a general aristotelian principle that a mover can communicate motion only by physical contact. Now for physical contact there must be extension, matter, magnitude and place on the part of both agent and patient. And for such beings that have extension, magnitude, matter and place there cannot be action on the part of the agent without a reaction. In other words, the agent cannot move without being in some way moved in turn. But since God is necessarily in-extended, immaterial and immovable, He cannot move by efficient causality.[95] The response to this difficulty has been anticipated in the discussion of contact[96] as a condition of efficiency and in the consideration of action and reaction.[97]

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[93] *Met.* XI, 7, 1072b, 14: *ἐκ τοιαύτης ἄρα ἀρχῆς ἤρτηται ὁ οὐρανὸς καὶ ἡ φύσις*

[94] *Met.* XI, 7, 1072b, 3. Among the adherents of this position may be numbered:—Ross, W. D., *Aristotle,* 2nd ed., 1930, p. 182; Piat, C., *Aristote,* Paris, 1903, pp. 107-123; Gomperz, Th., *The Greek Thinkers,* Engl. transl., vol. IV, pp. 215 ff; Zeller, Ed., *Die Phil. der Griech.* II, 2, 4th ed., Leipzig, 1921, pp. 372-390; Mansion, Aug., *Introduction à la Physique Aristotelicienne,* Louvain, 1913, pp. 158 ff; Chevalier, J., *La Notion de Nécessaire chez Aristote et chez ses Prédécesseurs,* Paris, 1915, pp. 137 ff, p. 166, n. 1; Ravaisson-Mollien, F., *Essai sur la métaphysique d'Aristote,* Paris, J. Vrin, 1837, vol. I, pp. 569 ff.

The objection obviously is due to a misunderstanding of Aristotle's full position on the matter. It is true that for physical contact of material substances, i.e. where one body acts upon another the agent suffers by the resistant action or reaction of the patient. But we have seen that besides this physical contact of corporeal substances there is also a physical contact in which an immaterial agent is involved, a contact between e.g., immaterial beings, or between an immaterial and a material being or even between a being whose form is immersed in matter of a different kind than that of the subject acted upon. In such cases, Aristotle notes that there is no reaction. The objection then, neglects entirely the provision Aristotle has made for that type of contact where the agent really touches the patient but does not suffer any action in return, as would most certainly be the case if God moved the world. Consequently the argument from the necessity of contact cannot be regarded as contravening in any way the efficiency of the Prime Mover.

(b) Of a much more serious and compelling character is the objection that Aristotle has denied to God both constructive (*ποιητικὴ*) and practical (*πρακτικὴ*) activity in the strict sense. This argument is given its most forceful expression by Zeller and so we shall present it faithfully as he voiced it.[98] Both poetic and practical activity in their restricted meaning,[99] connote an imperfection, the former because it has an end external to itself, the latter because it brings to an agent a perfection it lacked. But such imperfection is repugnant in God who has no end beyond himself, but is the ultimate end of everything[100] and who is pure act in himself with no admixture of imperfection. Consequently such activity cannot be attributed to God, and, in point of fact, Zeller affirms, Aristotle explicitly denied such activity to Him.[101] There are several passages however which one finds difficult to reconcile with this view since in these Aristotle seems to affirm both *πρâξις* and *ποίησις* of God. Zeller however takes this refuge. When Aristotle speaks of God's practical activity (as he does in *Eth. Nic.* VII. 15, 1154 b, 25; *Pol.* VIII, 3, 1325 b, 28) he is using the term in a wide sense as including every form of activity even the pure activity of thought. And when he ascribes constructive or transient activity to him (as in *De Coelo,* I, 4, 271 a, 35; *De Gen. et Corr.* II. 10, 336 b, 31 etc.) he is simply making a concession to the vulgar beliefs of the people, speaking their language or else he is using the word in an unrestricted sense, to signify causality in general without specification as to its kind. Our objector then proceeds to draw his conclusion. It is obvious, he says, that if God exercises neither productive nor practical activity in relation to anything else, He cannot be the first efficient moving cause of the world.[102] The divinity therefore, is *primum movens* only insofar as it is the absolute end of the world, as that which is loved, or as the governor whose will all obey but who never sets his own hand to the work. To discredit this view, Zeller remarks, it is not sufficient to adduce passages in which God is described as being the efficient and moving principle of the world. Rather it would be necessary to produce passages in which direct action on the world is attributed to God, then, to reconcile these with passages in which any such action is denied Him and finally to harmonize them with the aristotelian conception of an absolutely unchangeable being.[105]

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[95] It is in this way that René Mugnier (*La Théorie du Premier Moteur,* Paris, Vrin, 1930) summarily dismisses the possibility of efficiency on the part of the prime mover: "Du coup, la causalité efficiente doit être refusée au Premier Moteur, tout d'abord parce que celui-ci est inétendu et immatériel (*Phy.* VIII, 10) et puis surtout parce qu'il est immobile absolument (παντελῶς) et immuable" (p. 112).

[96] *Supra,* pp. 68-70.

[97] *Supra,* pp. 64-67.

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[98] *Die Phil. der Griechen,* II, 2, 365; 368 footnote 1; 373, 374.

[99] Aristotle distinguishes *ποίησις* and *πρâξις* both in source and in end. The former originates in the reasoning faculty, and the latter in the will (*Met.* V, 1, 1025b, 22 ff) and the former has an end outside of itself in a work to be brought into being, whereas the latter has its end in the activity itself of the agent (cf. *Eth. Nic.* VI, 4, princ.; 5, 1140b, 3). These terms correspond quite closely to the terms *facere* and *agere* respectively in the Latin, and to the terms "art" and "prudence" respectively in English.

[100] *De Coel.* II, 12, 292b, 4.

[101] He cites texts from the *Nicomachean Ethics* (X, 8, 1178b, 7 ff.) and from *De Coelo* (II, 12, 292a, 22) which purport to confirm this position. We reserve our discussion of these texts until we make our response to the argument in detail.

From this argument, so cogently expressed, it would indeed seem true that Aristotle conceived of his First Mover as a being entirely bound up with himself in pure contemplation of his own essence supremely intelligible, with no activity that could be termed transient, and in the fact with no cognizance of the world's existence. However this does not represent the complete picture as we shall attempt to prove. Our refutation will seek to demonstrate not only that efficiency is not excluded from the activity of the First Mover, but that Aristotle has positively attributed to God in a real sense direct action on the world in a manner that is interpretable as being compatible with those texts in which such actions appear to be denied Him, as well as with his perfect immutability.[106]

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[102] *Op. cit.,* p. 373: "Zunächts könnte es schon scheinen, wenn sich die Gottheit weder hervorbringend noch handelnd zu einem anderen in Beziehung setzt, könnte sie auch nicht das erste Bewegende sein".

[103] *Met.* XI, 7, 1072, 3.

[104] *Met.* XI, 10, prin. et fi.

[105] *Op. cit.* p. 374, 4, 2, v.f.

[106] For the refutation that follows the author acknowledges his dependence on the splendid article, previously noted, written by the learned R. Jolivet, "Aristote et la Notion de Création" (*Revue des*

In the first place it is not precisely true that the Prime Mover of Aristotle is without activity that can be characterized as efficient. In Book XI (Λ) of his *Metaphysics* Aristotle assigns to God a manner of action that—contrary to the general presumption—is providential. He likens him to a chief of staff of an army, directing the units (*Met.* XI. 10, 1075 a, 15) to a single ruler of a city (*Ibid.,* 1076 a, 3). He compares the universe to a house well organized wherein are found different degrees of power and dignity all subordinated to the unique and sovereign authority of the father of the family—to whom it pertains to secure the common good of all. Such expressions certainly justify one in assuming that Aristotle believed in some kind of a providence over the world by the intelligent and wise will of the First Mover.[107] It is this mover which imposes an order upon

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Sciences Philosophiques et Théologiques, XIX, 1930, pp. 25-39, *L'Activité Pratique*). That Jolivet's position is not isolated and unsupported is evident from the fact that there are other authorities of note who adopt a similar stand. Among these we recommend, Eugen Rolfes, *Die Philosophie des Aristoteles,* Leipzig, Felix Meiner, 1923, pp. 368-375, "Die Macht und Wirksamkeit Gottes"; Franz Brentano, *Aristoteles' Lehre vom Ursprung des Menschlichen Geistes* (Leipzig, Veit & Co., 1911, pp. 26-33, 121 ff, et passim). The latter work is primarily a polemic against Zeller who had taken Brentano to task for his interpretation of Aristotle on this matter in a previous book, *Die Psychologie des Aristoteles.* Josephus Gredt, O.S.B., similarly subscribes to this point of view. See his work, *Elementa Philosophiae Aristotelico-Thomisticae* (Friburgi, Brisgoviae, Herder, 1937, Vol. II, p. 245.

[107] Maimonides conceded to Aristotle a belief in divine providence which extended to the maintenance and renewal of species, though the learned Jew affirmed that the genesis of the individuals of each species, whether it be plant or animal or man was left to chance and outside the regime of providence in the Stagirite's mind. Thus: " . . . Certaines choses relèvent d'une Providence et se trouvent sous le gouvernement d'un être qui les régït et les ordonne, tandis que d'autres sont livrées au hasard. Telle est l'opinion d'Aristote. . . . Il croit que la Providence divine s'étend sur les sphères et sur ce qu'elles renferment, et qu'à cause de cela leurs corps individuels (les astres) restent toujours tels qu'ils sont. . . . Tout ce qu'il voyait se continuer avec suite, sans interruption et sans que sa marche subît aucun change-

the world which all must obey,[108] which makes a unity of disparate and centrifugal parts, which makes a cosmos (that is, a thing of beauty and order) out of a chaos.[109] Now the Prime Mover does this not merely as a final cause but as efficient. If in Aristotle's mind, the counsellor and adviser (*ὁ βουλεύσας*) are real efficient causes (albeit moral),[110] much more so is the ruler (*ὁ κοίρανος*). Zeller mistakenly supposes that the governor or ruler inasmuch as he "does not actually set his hand to the work" is therefore not an efficient cause, but only a final

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ment, comme les conditions des sphères célestes, ou ce qui suit une certaine règle et n'y fait défaut que par exception comme les choses physiques, il l'attribuait à un régime, c'est-à-dire (il croyait) que la Providence divine l'accompagnait; mais ce qu'il voyait ne pas suivre de règles et ne pas être soumis a une certaine loi, comme les conditions des individus de chaque espèce, soit plante, soit animal, soit homme, il disait que c'était l'effet du hasard et non d'un régime, c'est-à-dire que la Providence divine ne l'accompagnait pas." (Cf. *More Nebukhim,* III, c. 17, see French translation by Solomon Munk under title *Le Guide des Égarés,* Paris; Franck, 1866, vol. III, pp. 116, 119).

[108] Aristotle ridicules the supposition that there can be order in the world without an eternal independent and permanent principle or substance. Thus *Met.* X, 2, 1060a, 26: *πῶς γὰρ ἔσται τάξις μή τινος ὄντος ἀϊδίου καὶ χωριστοῦ καὶ μένοντος;*

[109] We might say in passing that here is contained definite refutation of those who assert that the God of Aristotle is so rapt in contemplation of his own essence that he knows nothing of the world which he transcends. If God is supremely wise as Aristotle affirms (*Met.* I, 2, 982b. 27—983a, 10) and if it is the part of the wise to order and ordain, it would be a derogation from God's wisdom if he knew not his subjects. Furthermore Aristotle in the very beginning of his *Metaphysics* states explicitly that Wisdom or the first Philosophy is a *divine science* such that "either God alone can have, or God above all others" (*Met.* I, 2, 983a, 10). Now we have seen that Wisdom is a knowledge of things in their causes. But if God did not know the effects of causes, not only *possible* but also *actual,* down to the last detail he could not be said to *know* causes nor to possess Wisdom. Cf. Marcel DeCortes, *Aristote et Plotin,* pp. 145-146; R. Jolivet, *Essai sur les Rapports entre la Pensée Grecque et la Pensée Chrétienne,* Paris, Vrin, 1931, pp. 62-67.

[110] *Phy.* II, 3, 194b, 30; 195a, 22.

cause. He fails to distinguish between the will's command and that which is the object of the command. The object of the command, i.e. the task to be done, takes on the nature of a final cause for the subjects of the command; it is this which they *intend.* But the command of the ruler's will is really an efficient cause in the order of intelligent beings; it is this which impels them to undertake the task assigned.[111]

It may be said by way of objection that Aristotle was simply conforming his language to the common beliefs of the day, that he personally did not subscribe to such beliefs. This is gratuitously asserted and the burden of proof is on the demurrers. One must at least conclude from these passages that Aristotle did not systematically *exclude* every species of practical activity from the idea of the Prime Mover. But Aristotle went beyond this as is evident from the following.

He praised Anaxagoras[112] and Hermotimus for having admitted the *Nous* as the *efficient* cause of the universal order (*Met.* I, 3, 984 b, 15-20), said that they had spoken like sober men among drunkards. Moreover, marking the superiority of the astral bodies, he not only attributed to them life but also practical activity (*De Coelo* II, 12, 292 a, 18) so that as the *Nichomachean Ethics* points out one must hold them to be beings much more divine than man himself (VI. 7, 1141 a, 34).

These texts form a striking group to prove that transient activity is not necessarily precluded from the First Mover. To deny absolutely the implication it would be necessary to demonstrate that they have been clearly contradicted by other texts and are therefore metaphorical or vulgar expressions of the nature and activity of God. This brings us to the texts which Zeller alleges to prove that Aristotle denies practical activity to God, viz. *De Coelo.* II, 12, 292 a, 23; 292 b, 5 and *Nicomachean Ethics,* X. 8, 1178 b, 8-25. Let us consider these in turn.

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[111] The distinction between final and efficient causes in such cases is brought out clearly by the later scholastic philosophers and theologians, notably the defenders of moral efficiency, like Franzelin. The final cause, the latter affirms, moves *ut sit* (in order that it may be attained), the efficient cause operates *quia est* (because it already exists). The application is obvious. The object of the command moves finally as something to be reached. The will moves efficiently as already existing and influencing an intelligent being.

[112] Cf. *supra,* p. 15.

In the passages from *De Coelo,* Aristotle speaking of the animation and action of the astral bodies makes the statement: " . . . . it is natural that the best-conditioned of all things should possess its good without action" [113] and again, he asserts, "the perfectly conditioned has no need of action since it is itself the end." [114] Thus, it would seem better for a nobler being to be without practical activity whereas the more imperfect a being is the more it must act to acquire what it lacks for its perfection. (*Ibid.,* 292 b, 10). These passages when compared with others do reveal a certain indecision on Aristotle's part, a certain hesitancy to attribute to God an efficient activity that is *formally transient* because he felt that such activity connoted imperfection. If any being acted transitively it would appear that it could only be with a view to an end or good not yet possessed and towards which it is in movement. If the texts prove anything then, it is that such *imperfect activity* which proceeds from a state of potency or imperfection and which manifests indigence on the part of the agent is denied of the First Mover. But is this the only type of transient activity that is possible? Cannot there be a virtual transiency of action? Cannot one conceive of such an action that would bespeak not imperfection but perfection, that would reveal not an indigence but rather an attribute, say for example, goodness or omnipotence? It may be that Aristotle has not explicitly said as much. Possibly he only vaguely suspected it, possibly he felt more than he could express, leaving it to the Christian Aristotle to enucleate. The fact remains in any case that his words are couched in restrained language. He did not say "It is *impossible* that the First Mover act transiently".

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[113] II, 12, 292a, 23: ἔοικε γάρ τῷ μὲν ἄριστα ἔχοντι ὑπάρχειν τὸ εὖ ἄνευ πράξεως.

[114] II, 12, 292b, 5: τῷ δ' ὡς ἄριστα ἔχοντι οὐθὲν δεῖ πράξεως. ἔστι γὰρ αὐτὸ τὸ οὗ ἕνεκα.

Rather, "it is *natural* for the perfectly-conditioned to *possess* its good without action." (But *possessing* its good could it not diffuse it *ex bonitatis immensitate?*) Or again, "the perfectly conditioned *need* not act" (οὐθεν δεῖ πράξεως). This is quite different from saying it cannot act. We conclude then by saying that this passage in no way militates against nor contradicts the texts cited above or those that will follow in which efficiency is attributed to God.

Let us turn now to the second passage, that, in the *Nicomachean Ethics,* as it would be interpreted by Zeller. In speaking of the gods (and in using the plural Aristotle admittedly is making concession to the prevailing polytheism of his day) he says that all the actions of the practical life are small and unworthy of their majesty and therefore neither πράττειν nor ποιεῖν are proper to them. The only activity then that remains to them is that of the contemplative life. What is to be said of this? The explanation of the passage is to be found in its context. Aristotle is only determining the essence of beatitude (ἡ τελεῖα εὐδαιμονία) and he answers by saying that it consists in the contemplative life alone, which has realized its perfection in God and consequently the essence of God's happiness does not consist in actions of the practical life which are unworthy of him (cf. *ibid.,* 1187 b, 7). In other words, if neither the practical nor the poetic life constitutes the essence of divine beatitude then this essence lay in the contemplative life. Such reasoning however in no way forces one to conclude that God is only capable of contemplative activity and that his nature absolutely excludes every other kind of activity. The only conclusion that can be drawn from this is that what *defines* the life divine in its proper perfection is this activity of contemplation.

This exegesis is confirmed if one compares this passage with Book XI (Λ) of the *Metaphysics,* Book VIII of the *Physics* and certain passages of the *De Coelo.* For example in chapter 7 of the eleventh book (Λ) of the *Metaphysics* Aristotle defines the nature of the First Mover, and in language quite similar to that of the *Ethics.* But though he forcefully emphasizes the contemplative life as being the characteristic proper to the deity, he does not deny to it efficient causality. Rather does he expressly assign such transient efficiency to God. What he really rejects is the vulgar anthropomorphism current in his day which attributed to the divinity human passions and occupations as constituting the matter of their happiness. Briefly then nowhere by any of the texts that have been invoked, has Aristotle excluded even by implication the idea of causal efficiency as being incompatible with the perfect immobility of God.[115]

Let us enlarge upon the statement made above that Aristotle expressly attributes transient efficiency to the Prime Unmoved Mover. In asserting the insufficiency of moved movers to account satisfactorily for motion in the world, the Philosopher posits the existence of "a mover which moves without being moved, being eternal, substance and actuality."[116] This mover actually "produces motion in space (which Aristotle maintains is the first kind of motion) and motion in a circle (the first kind of spatial motion).[117] Being therefore immovable *per se* and *per accidens,* this first principle or being then, "produces the primary eternal and single movement".[118]

These texts as they stand afford no ground for the assumption that they are to be interpreted in the sense of motion by final causation rather than efficient causality as Zeller would maintain. On the contrary the evidence seems clear that they must be understood as affirming efficient causality of the First Mover. In the chapter immediately preceding that in which these passages are found (viz. Chapter 6) Aristotle is speaking throughout of moving causes. To account for continuous and eternal movement, he appeals to an eternal immovable substance (6, 1071 b, 5). It is not sufficient that this substance be merely capable of moving or acting upon things. It must actually be doing so (*ibid.*, 1072 b, 12). Moreover its essence must be pure actuality. Now that Aristotle is speaking of an efficient cause and not merely a final cause is clear for two reasons viz. (a) the examples he cites, (b) his rejection of Plato's Forms. (a) As to the first, he asks the question: "How will there be movement if there is no actual cause?" "Wood" he says, "will surely not move itself—the carpenter's art must act upon it; nor will the menses nor the earth set themselves in motion but the seed must act on the earth and the semen on the menses" (*ibid.*, 1071 b, 28-31). These are, unequivocally, examples of efficient causes. (b) As to the second he asserts that nothing is gained by supposing eternal substances "as the believers in Forms do" unless there is to be in them some principle which can cause movement. Now Plato's Forms can readily be conceived as ends, but certainly not as efficient causes, and it was for this very reason that Aristotle rejected them. Pointedly then does Rolfes make the observation that if God is merely an end or final cause he is the same as the platonic Idea, which does not move at all.[119] Consequently God must be an efficient moving cause, an interpretation borne out by a remark made in a different treatise and in another connection. "God and nature", the Philosopher avers, "do nothing in vain".[120] This is primarily an affirmation of the rule of reason and the intelligible in the world. But it likewise is proof that the God of Aristotle is an efficient cause. The verb used (ποιοῦσιν) can only be understood as being expressive of transient efficiency. Certainly no one can doubt but that Aristotle regarded nature (φύσις)[121] as a moving cause. And if this is so, the very syntactical construction of the sentence forces one to conclude that God is a cause in the same sense.[122] The meaning then is that nature does nothing in vain because it acts as moved by God, the *primum movens,* and God does nothing in vain, since He is an agent, who acts through his intellect and always for an end.[123]

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[115] Cf. Jolivet, *Essai sur les rapports . . .*, pp. 30-31.

[116] *Met.* XI, 7, 1072a, 24-26: ἐπεὶ δὲ τὸ κινούμενον καὶ κινοῦν, καὶ μέσον τοίνυν ἐστί τι ὃ οὐ κινούμενον κινεῖ, ἀΐδιον και οὐσία καὶ ἐνέργεια οὖσα.

[117] *Ibid.*, 1072b, 7-10: ἐπεὶ δ' ἐστί τι κινοῦν αὐτὸ ἀκίνητον ὄν, ἐνεργείᾳ ὄν, τοῦτο οὐκ ἐνδέχεται ἄλλως ἔχειν οὐδαμῶς. φορὰ γὰρ ἡ πρώτη τῶν μεταβολῶν, ταύτης δε ἡ κύκλῳ. ταύτην δὲ τοῦτο κινεῖ.

[118] *Ibid.*, 1073a, 23-25: ἡ μὲν γὰρ ἀρχὴ καὶ τὸ πρῶτον τῶν ὄντων ἀκίνητον καὶ καθ' αὑτὸ καὶ κατὰ συμβεβηκός, κινοῦν δε τὴν πρώτην ἀΐδιον καὶ μίαν κίνησιν. Cf. *Phy.* VIII, 6, 260a, 17-19: τὸ δ' ἀκίνητον . . . μίαν καὶ ἁπλῆν κινήσει κίνησιν; *Phy.* VIII, 10, 267b, 24, 25: τὸ δέ γε πρῶτον κινοῦν ἀΐδιον κινεῖ κίνησιν.

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[119] Eugen Rolfes, *Die Phil. des Arist.* p. 369: "Ist Gott blösser Zweck, so ist soviel als platonische Idee. Diese bewegt aber nicht."

[120] *De Coelo* I, 4, 271a, 33: ‘Ο θεὸς καὶ ἡ φύσις οὐδὲν μάτην ποιοῦσιν.

[121] The word "nature" here signifies the conglomeration of natural

This leads one logically to the resolution of the objection against efficiency in God that would seem to be encountered in the statement that God moves as the object of desire (ώς ἐρώμενον) i. e. as final unmoved cause. The two are not incompatible. Nothing prevents, *de jure,* the prime immaterial unmovable mover from moving as final cause and simultaneously as efficient cause. Finality, far from excluding efficient causality rather embraces it as the superior embraces the inferior causes. In physical causes the end is generally distinct from the agent though

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causes in the physical universe. Cf. J. Marling, *The Order of Nature,* p. 8.

[122] Cf. St. Thomas, *In De Coelo* I, 8 v.f.: "Est autem attendendum quod Aristoteles hic ponit Deum esse factorem coelestium corporum et non solum causam per modum finis."

[123] Franz Brentano offers yet another extremely cogent proof for the efficiency of God. (Cf. "Aristoteles" in vol. I of *Grosse Denker,* edited by Ernst von Aster, Leipzig, Quelle and Meyer, 1923, p. 201). It is drawn from Aristotle's *Politics,* VII, 4, 1326a, 25 ff. Herein the Philosopher teaches that a State should not be too large (in the sense of being too populous) for it would then be too unwieldy for man to rule. He goes on to say that the ruling of a great multitude belongs only to God. "Law is order", he says, "and good law is good order. But a very great multitude cannot be orderly (i.e. by man) ; to introduce order into the unlimited is the *work of divine power* (θείας δυνάμεως ἔργον)—*of such power as holds together the universe* (1326a, 30-32). Brentano argues as follows from this passage:—"Wenn wir die Macht der Göttheit hätten, dann wäre freilich gegen die Ausdehnung eines Staates uber die ganze Erde nichts mehr zu sagen; und tatsachlich bringt ja auch die Kraft Gottes, in dem sie Himmel und Erde beherrscht, ein Reich von gewaltigster Ausdehnung zu vollkommenster Ordnung. Kein Wort kann klarer der Werktätigkeit Gottes Zeugnis geben als das, welches Aristoteles hier anwendet, indem er von der gottbestimmten Weltordnung sagt, sie sei "*Werk einer göttlichen Macht.*"

they may be the same specifically as when man generates man. But in God the two are inseparable and indistinct. What Aristotle excludes from the concept of God as cause is any exercise of efficiency outside of finality. In Him the final cause implies and absorbs the efficient. In conclusion then from this analysis we can say that the terms which the Stagirite uses leads one to conceive of the Prime Unmoved Mover as being not alone the final cause of the motion of the universe but an efficient cause as well, a being not merely capable of moving and acting on others efficiently (κινητικὸν ἢ ποιητικόν) but actually doing so (ἐνεργοῦν δέ τι[124]) and without whose action there would be no motion. Fittingly then can the God of Aristotle be characterized as the first of all principles, the supreme moving cause.

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[124] *Met.* XI, 6, 1071b, 12.

Chapter VI

NECESSITY OF CAUSE

(Principle of Causality)

The concept of efficient cause is seen to have its most fruitful extension and application in two vitally important and clearly distinct principles, viz. the principle of causality and the principle of uniform causation. It is unhappily true that failure to note the difference between these principles is in large measure responsible for much of the confusion of thought and rampant divagations that beset modern philosophy. For Aristotle there was no such confusion. In the *Organon* he marks clearly the province with which each principle is concerned. The principle of causality, its expression, extent and universality are all pondered in answer to the question "whether, when the effect is present, the cause also is present."[1] The principle of uniform causation on the other hand raises the question "whether it is possible for the same thing not to be the cause of the same thing in every instance of the effect or whether we must look to another cause."[2] In other words must the same cause always produce the same effect in similar circumstances or can it produce a different effect? The two questions then are widely diverse. The principle of causality regards the necessity of cause for every effect: the principle of uniformity. the necessity of causal action towards a determined effect. The former starting from the nature of the effect in itself, looks to a cause. The latter beginning with the nature of the cause argues to the expectancy or non-expectancy of a definite effect. The present chapter will be an attempt to set forth the aristotelian position on the principle of causality: the following chapter, his understanding of the uniformity of causation. In presenting the principle of causality, the statement of the principle shall first be considered, its attributes and character. Following this, the application of the principle shall be shown with particular reference to the natural movements of inanimate and animate being, and finally the use of the principle to prove the existence of a *Primium Movens Immobile* in spite of the difficulty that would seem to be involved in Aristotle's theory of the eternity of motion.

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[1] *Post. Anal.* II, 16, 98a, 35 ff: περὶ δ' αἰτίου καὶ οὗ αἴτιον ἀπορήσειε μεν ἄν τις ἆρα ὅτε ὑπάρχει τὸ αἰτιατον καὶ τὸ αἴτιον ὑπάρχει . . .

[2] *Post Anal.* II, 17, 99a, 1: πότερον δ' ἐνδέχεται μὴ τὸ αὐτὸ αἴτιον εἶναι τοῦ αὐτοῦ πᾶσιν, ἀλλ' ἕτερον, ἢ οὔ;

I. Statement of the Principle—Its Attributes and Character

It is necessary to recall that Aristotle's concept of efficient cause was that of a being which acts by motion. It is natural, then, that the principle of efficient causality should be expressed by him in terms of motion. In its most simple form it may be stated: "Everything that is in motion must be moved by something."[3] As it stands the principle has the character of necessity and universality. The question arises whence do we derive these two properties of the principle? Certainly these notes do not come to us from experience. Aristotle's personal observations, however far-reaching they might be, would never warrant such a generalization of his principle. Nor could the combined experiences of all men add the mark of universality, and far less, necessity, to causality on the ground of their individual experiences. If the truth of the principle were dependent on experience alone, it would have only that extension and quality which is commensurate with it. Nor does the principle come by its necessary and universal character from the "generalizing propensity which prompted mankind from almost the very beginning of their existence to ascribe all events to some cause more or less mysterious", as some philosophers would maintain.[4] Rather is Aristotle convinced that the principle possessed these characters from the very nature of motion itself, and that which is its term, the effect. Analysis of these reveals the necessity of a movent distinct from that which is moved for every type of change.

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[3] *Phy.* VII, 1, 241b, 25: Ἅπαν τὸ κινούμενον ἀνάγκη ὑπό τινος κινεῖσθαι.

[4] E.g. John Stuart Mill, *System of Logic,* London, Harper Bros., 1871, Bk. III, c 21, circa p. 337.

Motion, to repeat with needed emphasis what we have said before, is the actualization of that which is movable insofar as it is movable.[5] Every kind of motion of its very nature involves the presence of the things that are capable of that motion. Even apart from the definition of the term, all would admit that in each kind of motion, it is that which has a subjective potency for motion that is in the process of change.[6] It is that which is capable of being altered that is altered. It is that which has a passive potency for local motion that acquires a new ubication. It is that which is capable of being burned that is ignited. So it is the matter which is susceptible of a new form that actually receives it in the process of generation. In every case there is then, a potential subject. Now such a subject of its very nature is insufficient to account for motion by reason of its complete passivity with respect to the term or form to which it may be proximately disposed. If it does acquire this form reason demands that it receive it from something that possesses it actually,[7] whether formally or virtually, "since from the potential, the actual is always produced by an actual being." [8] Certainly no passive potency can be moved by itself to act.[9] The very suggestion that it could do so reveals at once its impossibility, for it would mean that one and the same thing, under the same aspect, could be both active and passive at the same time, a patent violation of the first law or principle of thought and being, i.e., the principle of contradiction, which Aristotle clearly expresses in the proposition: " . . . the same attribute cannot at the same time belong and not belong to the same subject in the same respect."[10]

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[5] *Phy*. III, 1, 201a, 10, 28; VIII, 1, 251a, 10.

[6] Cf. *Phy*. VIII, 1, 251a, 12 ff.

[7] *Phy*. VIII, 5, 257b, 9.

[8] *Met*. VIII, 8, 1049b, 24-25: ἀεὶ γὰρ ἐκ τοῦ δυνάμει ὄντος γίγνεται τὸ ἐνεργείᾳ ὄντος.

[9] *Met*. XI, 6, 1071b, 29-31; *Phy*. III, 2, 201b, 27 ff; VIII, 5, 257b, 6. Cf. Zeller, *Die Phil. der Griech*, II, 2, p. 253: "Das blos Potenzielle kann keine Bewegung erzeugen denn ihm fehlt die Energie. . . . " Clodius Piat, *Aristote*, Paris, Felix Alcan, 1903, p. 107: "Rien ne s'élève par soi-même de la puissance à l'acte; car rien ne peut être à la fois puissance et acte au même instant et sous le même rapport."

Hence the necessity and universality of the principle of causality is certified by the mere understanding of the terms involved "Being in motion", bespeaks a potential subject, which, for the acquisition of the form or perfection which is the term of its motion, demands a "mover" distinct from it. The acceptance of the principle then is forced upon one who arrives at an understanding of the terms. Its rejection on the other hand entails a denial of the principle of contradiction—which denial would "utterly destroy rational discourse".[11]

II. Application and Verification of the Principle

If the exigencies of right reason demand that for everything that is in motion there must be a mover experience cannot give the lie to it. So it is that with unfaltering reliance in its universality and necessity Aristotle applies his principle of efficient causality to motion of whatever kind, natural or unnatural, local, quantitative, qualitative, or substantial, (which latter includes both substantial change and substantial generation). The application in many cases need not be labored. There can scarcely be any doubt that, for instance a new living substance requires a generative principle, that the wood is consumed and changed into ashes by the fire, that a cold body becomes hot by the calorific quality of another body, that the unnatural local motion of corporeal substances is due to an extrinsic agent that acts counter to their natural movement as when a ball is thrown into the air or fire is forced down contrary to its natural upward élan. In all such cases it is clear that there is and must be a moving cause not only distinct but separate from the being in motion. There are, however, many other instances in which it is not so obvious that there is a mover, where the evidence of the senses offers no sure guide, where, if there is a mover it is not separate from the subject moved and where the real distinction is not perceptibly discernible. These, Aristotle admits, present a real though not insoluble difficulty.[12] We shall present the Philosopher's enucleation of the same.

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[10] *Met.* III, 3, 1005b, 19-20: *τὸ γὰρ αὐτὸ ἅμα ὑπάρχειν τε καὶ μὴ ὑπάρχειν ἀδύνατον τῷ αὐτῷ καὶ κατὰ τὸ αὐτό.*

[11] *Met.* X, 5, 1062b, 10. Just such a contradiction we might note, does David Hume fall into when he unhesitatingly affirms: "Twill be easy for use to conceive any object non-existent this moment and existent the next, without conjoining to it the distinctive idea of a cause, or productive principle" (*Treatise of Human Nature,* edit. Selby-Bigge, 1896, p. 79). For an expose of Hume's contradiction see D. J. B. Hawkins, *Causality and Implication,* N. Y., Sheed and Ward, 1937, pp. 33-34.

1. Natural motion of inanimate bodies.[13]

When inanimate bodies are locally in motion to positions the reverse of those they would properly occupy, when e.g. there is an upward motion of earthly things and a downward motion of light things this motion is called violent or unnatural, evidently due to a counteracting influence. When on the contrary they are in motion to their proper place, the light, up and the heavy, down, that motion is natural. But in this cause, it is no longer evident, as it is when the motion is unnatural, whence it is derived. It cannot be that it is derived from themselves, since self-initiated "local motion is characteristic of life and peculiar to living things"[14] and if moreover they were to have within them the active power of moving themselves, it would be natural to expect that they would likewise have it in their power to stop themselves. Thus if fire were to possess the power of upward locomotion it should also possess the power of downward locomotion—a surd-sounding possibility. Consequently the explanation of the local motion of these bodies must be sought in the concourse of extrinsic principles, which moves them naturally, for they are as impotent to give themselves any impulsion as a table is of walking from one end of a room to another. This extrinsic principle Aristotle places in "that which brought the things into existence as such and made them"[15] what they are, that is, susceptible to this natural kind of local motion, though accidentally and indirectly they may be said in a sense to be moved by anything that releases what might hinder or prevent their natural motion.[16]

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[12] *Phy.* VIII, 4, 254b, 33 ff.

[13] *Phy.* VIII, 4, 255a, 3 ff.

[14] *Phy.* VIII, 4, 255a, 6: *ζωτικόν τε γὰρ τοῦτο καὶ τῶν ἐμψύχων ἴδιον . . .*

[15] *Phy.* VIII, 4, 256a, 1: *γὰρ ὑπὸ τοῦ γεννήσαντος καὶ ποιήσαντος κοῦφον ἢ βαρύ (τὰ κοῦφα καὶ τὰ βαρέα κινοῖτο)*

2. Natural motion of animate bodies

What is thought to present a greater difficulty than the motion of inanimate beings is that of living bodies. Here we are faced with automata, now at rest, now in motion, passing from one state to the other spontaneously with, apparently, no external influence. By means of legs or something of an homologous nature these automata move about, walk, run, fly, jump, swim or creep. Certainly here, if anywhere, there is motion without a mover. Yet in these cases Aristotle no less firmly insists that there must be an efficient or moving cause and that the principle suffers no exception. Motion of such beings he asserts can only be explained by the fact that they are divided into parts of which one is moving (i.e. actively) and the other being moved and he issues the warning that this is not to be denied simply "on the ground that it is not evident which is the part that is moving and which the part that is moved." He does not rest there however but attempts to show that the solution he has arrived at must be so in accordance with his established theory of motion. To sustain his position he advances two arguments which we shall set forth briefly.

1. The first argument as it stands[17] is believed to be of questionable validity. He premises his proof with two statements which, with reason, he assumes to be incontrovertible, viz., (a) If there were anything in motion without being moved by something it would not necessarily cease because something else is at rest.[18] (b) From this it follows that a thing must be moved by something if the fact that something else has ceased results in a desi-

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[16] *Ibid.*, 256a, 2: ὑπὸ τοῦ τα εμποδίζοντα καὶ κωλύοντα λύσαντος. Cf. *Phy.* VIII, 4, 255b, 26-27.

[17] *Phy.* VII, 2, 241b, 24-242a, 15.

[18] *Ibid.*, 241b, 33-242a, 2: ἔτι τὸ ὑφ' αὐτοῦ κινούμενον οὐδέποτε παύσεται κινούμενον τῷ ἕτερόν τι στῆναι κινούμενον.

tion of its own activity.[19] Now then, let us take a certain mobile being (AB) which, it is supposed, is in motion essentially and primarily, a.v., *not* in virtue of the fact that something belonging to it is in motion. Such a being must, according to Aristotle's principles be divisible, since everything that is in motion is divisible.[20] This being so, nothing inconvenient should follow if we actually supposed it to be divided. Let us make that supposition and consider AB as divided at a point Γ, so that one part of it is AΓ and the other ΓB. *If* now the part ΓB were to come to rest, there are two possible alternatives; either the whole AB would likewise come to rest or the part, AΓ, would continue in motion. In either case it would be clear that the whole is not in motion primarily and essentially in its entirety. Take the second alternative, i.e. the continuance in motion of the part, AΓ, if ΓB were to come to rest. Granting this it would follow that the whole is not in motion originally save through the motion of the part AΓ which would continue in motion if ΓB were to cease. For nothing is in motion primarily and essentially when only one part of it is in motion. But, under the first alternative, i.e. the cessation of the motion of the whole, AB, in the eventuality of a part ΓB coming to rest, it would likewise follow that AB is not in motion primarily and essentially. For if the fact of ΓB's coming to rest were to cause a cessation of the activity of the whole, it must originally have been moved by ΓB.[21] Consequently, Aristotle concludes, there is nothing which is not moved by something.[22] His proof then, narrowed down to skeletal outline is a hypothetical argument which may be expressed in this manner:

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[19] *Ibid.*, 242a, 2: ἀνάγκη τοίνυν, εἴ παύεται κινούμενον τῷ ἕτερον τι στῆναι, τοῦθ' ὑφ' ἑτέρον κινεῖσθαι.

[20] Cf. *Phy.* VI, 4, 234b, 10 ff. The reason, Aristotle proposes, why everything in motion is divisible rests on this: motion in the strict sense is a gradual process from one contrary to another. In this process the being in motion does not in its entirety and instantaneously reach the term of motion. Therefore it must be composed at least potentially of parts, one part of which reaches the goal before the others—the goal being considered the final term or any of several arbitrary stadia along the way. As a whole the being in motion cannot both be at the starting-point and at the goal.

[21] See premise b, above.

> If a part of a being having motion in itself primarily and essentially were to cease its motion either a part would continue in motion or the whole would come to rest. In either case it would not be in motion primarily and essentially.
>
> Consequently the being having motion in itself must be moved by something.

Against this argument two criticisms have been leveled: (a) It proceeds from a false assumption; (b) It is incomplete. Let us consider these in turn: (a) Avicenna has observed, as St.

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[22] In the presentation of this argument, the author has had recourse to St. Thomas for the explanation of Aristotle's subtle and exceedingly succinct expression (cf. *In VII Phy.* lect. 1). A briefer form of the proof is attempted in the Leonine Edition by St. Thomas' editors, in the following way: "Quod movetur a seipso, non quiescit a suo motu per quietem cujuscumque alterius. Sed omne quod movetur quiescit ad quietem alterius, sc. partis; nam si quiescente una parte, totum non quiescit, totum movetur ratione alterius partis, et ita non movetur primo et per se, contra id quod supponitur. Ergo omne quod movetur, cum sit divisibile quiescit ad quietem partis et consequenter non a seipso sed ab alio movetur." (*In VII Phy.* 1. Leonine edition. *Commentaria in Octo Libros Physicorum Aristotelis.* Rome, Typographia Polyglotta, 1884). W. D. Ross (*Aristotle's Physics,* Oxford, Clarendon Press, 1936, p. 669), believes that Aristotle's argument is erroneous. It is true, he admits, that the movement of the whole involves the movement of the parts, since if the part ΓB were at rest, not the whole, but at most the remaining part AΓ would be in motion. But Aristotle makes the mistake, he adds, of supposing that this implies causal dependence of the movement of the whole on the movement of a part of itself, ΓB. That this is false, he continues, is shown by the fact that it is equally true that if the part, AΓ is at rest, the whole could not be in motion, so that the motion of the whole, if it were causally dependent on that of ΓB would be equally dependent on that of AΓ. There is some confusion here. Ross, it appears, fails to understand that there are, initially, two distinct alternatives if the part ΓB were to come to rest. These we have noted. Either the part, AΓ, would continue in motion, in which

Thomas notes [23] that the argument proceeds from a false assumption. For if in the first place we suppose that a being is wholely in motion primarily and *per se,* it is logically impossible to make the assumption that a part of it comes to rest, since this would be repugnant to the nature of such a being. St. Thomas grants the force of Avicenna's objection saying that we must concede it to be as impossible for the whole or even a part of that which is in motion primarily and *per se* to come to rest, as it is impossible that fire should not be hot.[24] It seems then to be a "petitio principii" to make this supposition of a being, if such there be, which is in motion essentially and primarily. The Jesuit commentators of Coimbra in attempting to explain this passage fall into this error. For they reason thus. If anything were to move itself primarily and *per se* its motion would depend on nothing else. But the motion of any whole whatsoever depends on its parts and their movements. And the reason they allege? Because *if* the motion of the parts were to subside, the whole would come to rest. Therefore, they conclude, primary and essential motion is not proper to anything having parts.[25]

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case AΓ and not ΓB would have originally accounted for the motion. for if the part AΓ continued in motion, its motion would certainly not be caused by the part that had come to rest. Or the whole (including AΓ would cease entirely from motion and in this case alone would the part that had come to rest, ΓB, have caused the motion in the beginning. Aristotle clearly does not imply the causal dependence of the whole on the part ΓB, if the part AΓ continues to move when ΓB has ceased. Consequently it is not on this score that Aristotle's argument can be impugned. The internal logic of his hypothesis is inexorable for the apodasis follows necessarily from the protasis. The real issue however as we shall see is the protasis itself. Can such a condition be made and if so, can it be proved? Only an affirmative answer to these questions would validate the consequent and "consequentia".

[23] *In VII Phy.* lect. 1: "Sed. magis urget objectio Avicennae etc."

[24] *Loc. cit*: "Concedendum est . . . quod impossibile est, quod si aliquod mobile ponitur movere seipsum, quod totum vel pars ejus quiescat; sicut impossibile est ignem non esse calidum, propter quod est sibiipsi causa caloris.

[25] *Conimbricensis Collegii Commentaria super Octo Libros Physi-*

Beyond the fact that the conclusion would follow only *if* it were proven that the parts or a part *did* come to rest thereby causing a cessation of the motion of the whole, the argument is akin to reasoning in this fashion. If there is a being that is in motion primarily and essentially, its parts would not come to rest. Nevertheless *if* its parts *were* to come to rest it would not be in motion primarily and essentially. Or again, if man, were an ass, he would be irrational.[26] But if he is rational he would not be an ass. The propositions are all equally true. But nothing is gained thereby. And it would be just as unwarrantable to conclude in the first case that therefore the whole is not in motion primarily and essentially as it would in the second case to say that therefore man is not an ass, unless one were prepared to prove in the latter instance that man *is* rational and in the former that a part of the whole does actually come to rest. For only in this way can one solve the really arguable point whether there is or is not a body that is in motion independent of its parts. It is in reference to this phase of the argument that Aristotle's proof is open to the second objection of being incomplete—the consideration of which is deferred for the moment.

It appears clear from what has been said, that Avicenna's objection is well taken. The existential reality of bodies that are in motion primarily and essentially cannot be disproved by supposing in the first place that there are such beings and then immediately introducing a supposition that destroys the very possibility of the former hypothesis. Aristotle according to the strict literal interpretation of the words seems to do just this. And yet it is difficult to believe that this was his intention, especially in view of the fact that by a slight modification of the

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corum Aristotelis (Venice, 1616), Prima Pars, p. 194: "Si quid moveret se per se primo, ejus motus a nullo alio penderet; atqui motus cujuslibet totius quod movetur pendet ex partibus earumque motibus; quia *si* quiescerent, totum quiesceret. . . . Igitur motus non inest alicui habenti partes, a se primum.

[26] *In VII Phy.* lect. 1: "Si homo est asinus, est animal irrationale".

words, his hypothesis can be made to take on a meaning and a force that is above exception. What the Philosopher started out out to prove is that bodies that contain in themselves the source of their own movement, are not in motion primarily and essentially, i.e. independent of their parts. Some there were who maintained the contrary view. He takes note of this position and proceeds to prove it impossible. His strict formal expression does not reveal the dialectic of the argument as well as Plato's dialogue style would, yet it is contained there and might be expressed in this manner. "Here are beings that contain the source of motion in themselves, men, animals, birds, fish, etc. Now you say that these are in motion primarily and essentially independent of their parts. If that were so, they would be unaffected by the cessation of motion in any of their parts. If however the coming to rest of a part of such beings causes a cessation of motion of the whole, then they are not, as you say, in motion primarily and essentially." This would appear to be the more precise explanation of Aristotle's cryptic hypothesis. His original condition was stated in this fashion: If a part of a being having motion in itself primarily and essentially were to cease its motion, either another part would continue in motion or the whole would come to rest.[27] If now, following the above interpretation, one substitute for the categoric words "part of a being having motion etc." the words "part of *that which has its source of motion in itself and which is thought or supposed to have motion primarily and essentially*", the objection of Avicenna would have no place, for it does not suppose the actual existence of beings that are in motion independently of their parts, but simply of beings that have their source of movement in themselves which even Aristotle's opponents would admit. And starting from this a supposition is made (viz. the cessation of a part of such beings), from which, *if proved,* the consequent will follow with inexorable logic. The words "if proved" are emphasized because unless the antecedent is demonstrated the condition will remain a condition and the consequent will not be verified. This brings one to the second criticism of Aristotle's argument.

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[27] Compare skeleton outline of argument above p. 105.

b) It is incomplete as it stands. An ellipsis is evident in the Philosopher's reasoning for he makes the transition from the statement of his condition to the conclusion thereof without positing (*modus ponens*) the protasis or antecedent. Unless we are to convict Aristotle of erring in a matter of fundamental logic, we must conclude that this omission was made deliberately and knowingly. For the author of the Organon was too astute a logician not to have realized that his conclusion was firm only if the antecedent of his condition were clear beyond dispute. And here we have the reason for the abbreviated form of his hypothetical reasoning. He who had such a keen interest in biology, who had made so intense a study of living things, who has written so many zoological treatises [28] wherein the morphology, generation and motion of animals is discussed with remarkable accuracy, felt, no doubt, that there was little need of proving that in living beings motion is from part to part and when one part ceases to act the whole comes to rest. He saw that animal bodies as a whole were in motion by their locomotive organs, legs or their homologues. These organs in turn are composed of parts, bones and muscle or sinewy tendons.[29] The bones are like levers which are moved by the tendons or muscles. These in turn depend physically on heart, psychically on the cognitive and appetitive faculties of the soul whose motions are translated into bodily action.[30] The soul itself is essentially unmoved as far as local motion is concerned, though it may be said to be accidentally moved in space by reason of the motion of the body it moves. Hence it is the formal part of the animal composite which ultimately initiates local motion. If this ceases to imperate by will or to conate by the sensuous appetite the parts of the body which are the organs of locomotion cease to act and thereby the animal as a whole comes to rest. The realm of animate beings then offered ample evidence to Aristotle of the fact that those bodies which contained in themselves the source of their own movement operated as a whole in dependence on their parts. And so his failure to adduce proof was an omission of what he considered too obvious for amplification.

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[28] περὶ ζῴων ἱστορίας (*Historia Animalium*), 'Ανατομαί (*Anatomical descriptions*), περὶ ψυχῆς (*De Anima*), περὶ ζῴων γενέσεως (*De Generatione Animalium*), περὶ ζῴων κινήσεως (*De Motu Animalium*), περὶ πορείας ζῴων (*De Incessu Animalium*). The last two have been regarded by some to be lacking in authenticity (e.g. Brandis and Rose—see Zeller, *Phil. der Griech.*, Teil II, 2, p. 97, ftn. 2). However the more modern opinion inclines to accept them (cf. *De Motu Animalium,* Oxford Edit., translation by John Langhorne, preface).

[29] *De Motu Anim.* c. 7, 701b, 6 ff.

[30] *De Anim.* II, 4, 415b, 22 ff; II, 10, 433a, 9 ff; *De Motu Anim.* c. 6, 700b, 5 ff.

These difficulties being met and solved, it is clear that the argument subtle though it is, is not as eristic as might first be supposed and that it forms a very cogent proof bearing out the principle that whatever is in motion is moved by another.

2) There is yet a second argument which Aristotle employs to the same end and this appears at once more forceful and appealing.[31] He begins, as before, by saying that everything that is in motion by itself is a continuum and a divisible unit and that consequently there can be discerned in each the whole and the parts. Now it is impossible that that which moves itself should in its entirety move itself, as a whole,[32] for taking one and the same numerical motion this contradiction would ensue. A being which remains specifically one and undivided would as a whole be both undergoing and causing the same locomotion or alteration; one would for instance at the same time be both teaching and learning the same thing; one would be restoring to and being restored to the same health at the same time.[33] Contraries would be one; and potency and act would be indistinguishable. But Aristotle has already established the fact that what is moved is to this extent in potency. Motion is its actualization. What moves

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[31] *Phy.* VIII, 5, 257a, 33-258a, 27.

[32] *Phy.* VIII, 5, 257b, 2: ἀδύνατον δὴ τὸ αὐτὸ κινοῦν πάντῃ κινεῖν αὐτὸ αὑτό.

[33] *Ibid.* 257b, 3 ff: φέροιτο γὰρ ἂν ὅλον καὶ φέροι τὴν αὐτὴν φοράν, ἓν ὂν καὶ ἄτομον τῷ εἴδει, καὶ ἀλλοιοῖτο καὶ ἀλλοιοῖ, ὥστε διδάσκοι ἂν καὶ διδάσκοιτο ἅμα, καὶ ὑγιάζοι καὶ ὑγιάζοιτο τὴν αὐτὴν ὑγίειαν

(actively) on the other hand is an actuality. The potential being lacks the form or perfection to which it is in process, otherwise there would be no reason for its motion. The actual being already possesses the form, otherwise it could not cause the motion. Consequently since it would be a patent violation of the principle of contradiction that a being should under the same aspect, i.e. with reference to the same form, be in potency and act, it is clearly impossible for a whole in its entirety to move itself. The conclusion therefore at which the Stagirite arrives is that when we say a thing moves itself there is (at least) one part which is a movent and another part that is moved.[34]

A corollary following from this is to the effect that a being is not self moving in the sense that each of the two parts is moved by the other.[35] There must be one part that imparts movement, itself unmoved. It is only on this supposition that it is possible for a thing to be said to be self-moved.[36] For if the moving part were reciprocally moved by the part on which it acts it would follow that there is no first mover in the self-moved being since there is no reason why one part should act more than the other. This would destroy the measure of superiority in mobile beings which Aristotle with justice attributes to the so-called self-moving movers. Moreover the rejection of an unmoved part in these beings would involve one in the same contradiction as was met above. For just as in the case of the whole moving itself, as a whole, so too with a part if it were moved by the part it acts upon. Since the motion of that which moves itself at any one instant is one motion, the part imparting motion would at the same time be undergoing the motion it is causing—that part which is producing heat, for example, being heated.[37] The existence of this unmoved part does not, of course preclude the reality of other parts (nerves, tendons, muscles, bones, etc.) that are moved movers. All these however derive their motion as does the whole from the unmoved part. It is not to be thought that this latter moves itself. It is self-moved only indirectly and incidentally, i.e. to the extent that it must change its place in accordance with the whole which it moves through its parts.[38] The soul—for it is this to which Aristotle refers when he speaks of the unmoved part—is itself moved somewhat after the fashion of the helmsman who is carried along with the motion of a ship.[39] It can move itself therefore only "in the sense that the vehicle in which it is, can be moved, and moved by it."[40]

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[34] *Ibid.* 257b, 13: τὸ μὲν ἄρα κινεῖ τὸ δὲ κινεῖται τοῦ αὐτὸ αὐτό κινοῦντος.

[35] *Ibid.* 257b, 14: ὅτι δ' οὐκ ἔστιν αὐτὸ αὐτὸ κινεῖν οὕτως ὥσθ' ἑκάτερον ὑφ' ἑκατέρου κινεῖσθαι . . . φανερόν.

[36] *Ibid.* 258a, 1-2: τῆς ὅλης ἄρα τὸ μὲν κινήσει ακίνητον ὃν τὸ δὲ κινηθήσεται. μόνως γὰρ οὕτως οἷόν τέ τι αὐτοκίνητον εἶναι.

[37] *Ibid.* 257b, 25.

Beyond this, it is somewhat difficult to discover precisely what Aristotle means when he says the soul is unmoved. This much is certain—it is unmoved by the local motion which it causes in the body, except with the qualified reservation that has just been made. Apart from this however, is it entirely unmoved? Let us consider the various vital functions of which living beings are capable.

As to nutrition and growth, it is not the soul which is affected but rather the body. In both of these functions, it is the "besouled body" that is fed and grows and it does this just because it has a soul in it.[41] By means of food, the psychic principle as a principal cause, tends to maintain *whatever power it has of continuing as it was* through the sustenance given to the body and it does this by means of a concurrent though subordinate cause, viz. heat which concocts the undigested food and renders it assimilable.[42] Once assimilated it is not the soul which grows but the body, since this alone is capable of quantitative increase or decrease. There is no difficulty about the act of reproduction. The end of this action is the generation of a substance similar to it. This leaves the soul unchanged, though the body is altered.

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[38] *De. Anima.* I, 3, 406a, 30-b, 3.

[39] *Ibid.*, I, 3, 406a, 5-10.

[40] *Ibid.*, I, 4, 408a, 30 ff: δῆλον ἐκ τῶν εἰρημένων. κατὰ συμβεβηκὸς δὲ κινεῖσθαι . . . ἔστι καὶ κινεῖν ἑαυτήν, οἷον κινεῖσθαι μὲν ἐν ᾧ ἐστί, τοῦτο δὲ κινεῖσθαι ὑπὸ τῆς ψυχῆς. ἄλλως δ' οὐχ οἷόν τε κινεῖσθαι κατὰ τόπον αὐτήν

[41] *De Anima* II, 4, 416b, 9: τὸ ἔμψυχον ἄν εἴν σῶμα τὸ τροφόμενον, ᾗ ἔμψυχον.

[42] *De Anima* II, 4, 416a, 5-15.

When one comes to the proper actions of the higher animals, perception in brutes and this, plus intellection in man, Aristotle is very loathe to say that the soul is altered. He denies that either of these can be called motion in the proper sense of the term. Strictly speaking, alteration (and this is the only kind of motion that these actions could be taken for) is a process from contrary to contrary which involves the extinction or destruction of the prior contrary (as change from black to white). But in perception and intellection the sentient and intellective subject has no contrary since it is proximately disposed to all forms—the senses receiving all material forms without matter, the intellect being receptive of all immaterial forms. These faculties of the soul then are 'acted upon' only in the sense that there is a maintenance of what is potential by the agency of what is actual and *already like what is acted upon,* with, as Aristotle notes, "such likeness as is compatible with one's being actual and the other potential". So he concludes that what possesses (potential) knowledge becomes an actual knower by a transition which is either not an alteration at all (being in reality a development into its true self or actuality) or at least an alteration in a quite different sense from the usual meaning.[43] If we are to regard cognitions of either kind in the former sense as not being alterations at all, then in this respect the soul would still be unmoved. If however we are to say they are alterations or motions in a broad sense (since they are in reality an actualisation of a potential thing *qua potential*), then it is necessary to qualify the statement that the soul is unmoved. For then the principle of causality would assert itself and it would be necessary to maintain that the soul, though unmoved by the physical motions (locomotion, nutrition, growth and reproduction) which it originates, is nevertheless altered or moved by the forms that actualize its subjective cognitive potencies. It should be noted however that alterations of this nature would occur only in the acquisition of knowledge—not in its use. For, as Aristotle observes, it is wrong to speak of a wise man as being altered when he uses his wisdom, just as it would be absurd to speak of a builder as being altered when he uses his skill to construct a house.[44]

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[43] *Ibid.,* II, 5, 417b, 2-7.

There yet remains the problem whether the unmoved moving part of these self-moving beings requires for its own active potency and its use, the influence of another efficient cause. There is no question here of its need of a final cause to operate. This is quite clear. Every efficient cause, moved or unmoved, depends in a sense for its motion on a final cause. Even God Himself, as has been noted, does not act efficiently apart from finality. The reason is that there can be no appetition or conation unless there is a good, apparent or real, and desirable or appetible as an end. The question therefore is one of efficient cause. Is the unmoved part of living, self-moving beings, sufficient unto itself for the potency it possesses, and the motion it imparts to the whole—(and we might add, for all of its transient activity as well)—or does it depend for its own motion on the concurrence of a higher cause? Aristotle has nowhere explicitly answered this question as such and there is sufficient vagueness in his works to raise some doubt. But, though he does not treat of this particular problem, professedly, nevertheless from his view of the interlocking relationship of efficient causes in general[45] and especially the dependence of the unmoved astral spirits on the Prime unmoved mover it would seem necessary to conclude that they do require an efficient cause of a superior order. Certainly in the *generation* of the substance of which the 'unmoved' part is the form there is need of a nobler cause. For in the case of self-moving substances which have a beginning and which will perish (and all terrestrial beings are of this kind since, unlike the heavenly bodies, they are composed of a matter that admits contraries) there is obviously a need of something that causes them to be at one time and, another time, not to be.[46] And this exigency is not satisfied completely, e.g. in human generation, by the begetter. Aristotle postulated likewise the influence of the sun—an influence that in no manner can be considered subordinate, but rather superior to the proximate efficient cause.[47] It is evident then that "the existence of no substance is a self-generation."[48] But what does Aristotle mean when he says it is a "self-maintenance"?[49] Is it, that once generated, the self moving being with its unmoved part can dispense with the influence of the cause that brought it into existence? An affirmative response would scarcely reflect the Stagirite's mind. The unmoved part, it is true, need no longer be influenced for its activity by the proximate efficient cause if this latter were the cause *only* of the *generation* of the effect. But this cannot be so in the case of an efficient cause of the (continued being and) *motion* of the effect. Every mover then, and (this includes even unmoved agents) that is not in itself pure act but which acts by a potency, requires the perduring influence of a superior cause. Such was the case, we have seen, with the unmoved celestial spirits. These depend—it seems necessary to say—for the maintenance in use of the very power they have of moving the heavenly bodies, on the prime unmoved mover.[50] If this is so of these eternal spirits, it is *a fortiori* true of the transitory self-moving beings, these corporeal animate substances which have an 'unmoved' part. But let Aristotle speak for himself. In a passage that merits quotation in full, he says:

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[44] *Ibid.*, II, 5, 417b, 8-9.

[45] See above, pp. 80-85.

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[46] *Phy.* VIII, 6, 258b, 23: δῆλον γαρ ὡς αἴτιόν τι τοῖς αὐτὰ ἑαυτὰ κινοῦσίν ἐστι τοῦ ὁτὲ μὲν εἶναι ὁτὲ δὲ μή. It shall be seen shortly that Aristotle posited an efficient cause even for the motion of those beings that are eternal.

[47] *Met.* XI, 5, 1071a, 15. See also above, pp. 80-82.

[48] *De Anima* II, 4, 416b, 16: ἤδη γάρ ἐστιν αὐτὴ ἡ οὐσία, γεννᾷ δ' οὐθεν αὐτὸ ἑαυτό . . .

[49] *Ibid.*: ἀλλὰ σώζει

[50] Cf. *De Gen. et Corr.* II, 10, 337a, 20-22: "If the circular movements" (of the heavenly bodies) "are more than one, their initiating causes" (the unmoved spirits) "must all of them, in spite of their plurality, be in some way subordinated to a single 'originative' source" (God). What can be the nature of this 'subordination' unless it be a dependence for the sustained use of their active potency, on the prime mover? See also *Phy.* VIII, 6, 259a, 12-13: "The first of unmoved beings" (implying the

> "It is clear . . . that though there may be countless instances of the perishing of some principles that are unmoved but impart motion, and though many things that move themselves perish and are succeeded by others that come into being, and though one thing that is unmoved moves one thing while another moves another, nevertheless there is something that comprehends them all, and that, as something apart from each of them, and this is the cause of the fact that some things are, and others are not, and of the continuous process of change: and this causes the motion of other movements, while they are the causes of the motion of other things." [51]

Here is indubitable evidence that in the mind of Aristotle all things depend for their motion upon the direct [52] influence of the First Unmoved Mover and that by the term "unmoved" as applied to finite substances, the Philosopher certainly did not intend to exclude the causal action, immediately, of a superior efficient cause, and, mediately and ultimately, of a prime unmoved efficient cause.[53] The point that is to be made and stressed is

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existence of others) " . . . will be the principle of motion to *everything* else (*τοῖς ἄλλοις*)." For the Greek of these passages see p. 84, n. 92. (The words "everything else" is the Oxford rendition of *τοῖς ἄλλοις*.)

[51] *Phy.* VIII, 6, 258b, 32-259a, 6: *δῆλον τοίνυν ὅτι εἰ καὶ μυριάκις ἔνιαι ἀρχαὶ τῶν ἀκινήτων μὲν κινουσῶν δέ καὶ πολλὰ τῶν αὐτὰ ἑαυτὰ κινούντων φθείρεται, τὰ δ' ἐπιγίνεται, καὶ τόδε μὲν ἀκίνητον ὄν τόδε κινεῖ, ἕτερον δε τοδί. ἀλλ' οὐδὲν ἧττον ἔστι τι ὃ περιέχει καὶ τοῦτο παρ' ἕκαστον ὃ ἐστιν αἴτιον τοῦ τὰ μὲν εἶναι τὰ δὲ μὴ καὶ τῆς συνεχοῦς μεταβολῆς. καὶ τοῦτο μὲν τοῦτοις, ταῦτα δὲ τοῖς αἴτια κινήσεως.*

[52] The word "direct" is not to be understood as opposed to mediate, but to indirect or accidental. Direct influence may be either immediate or mediate. A man directly moves a stone, though he may use his hand and a stick to do so. So too God directly moves the self-moving substance though He may do so through the medium of the heavenly bodies.

[53] It is unfortunate that Aristotle has not enlarged upon this doctrine. The impression has become commonplace even in scholastic circles that

the fact that the principle of causality applies even to unmoved substances and unmoved parts of self-moving corporeal substance as well, though, to be sure, in its application the word motion must take on a broader meaning than that strictly attributed to it by Aristotle.

3. *First Unmoved Mover and Impossibility of an Infinite Series of Secondary Movers.*

At this juncture it seems that a digression is legitimately called for. The existence of an immovable prime mover is, it is clear, an absolutely necessary and integral part of Aristotle's philosophy. The logical reason for this is, however, not yet apparent. It is *not* an immediate conclusion from the principle of causality itself but a deduction from a study of the nature of finite movements and of secondary efficient causes. The principle of causality simply states that whatever is in motion is moved by another. In itself it makes no declaration concerning the character of that 'other'; that is to say, it does not affirm whether that which is in motion must always be moved by something that is itself moved or whether it is moved by something that is immovable. So it is on other grounds that Aristotle points out that a moved being *cannot* always be moved by something that is

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he was not only ignorant of any doctrine of providence (which we have indicated is not precisely true, see above, p. 89.) but was moreover far from a concept of God's premotion in the world. Whence this impression derives, it is difficult to say. Certainly not from the writings of Aristotle's sympathetic and genial interpreter, St. Thomas. Nor can it be drawn from his own writings. Passages such as those that have been quoted in which direct action on the unmoved movers is attributed to God, do not permit the interpretation that Aristotle had no idea of premotion. It is true that these passages are sparsely scattered in his works, that he has never developed them and possibly never saw through their ramified implications and applications (a task left to his Christian commentator) nevertheless they are there, at least in embryonic form, rationally compatible with doctrines of another die that would seem at first sight to run counter to them, and forming an integral part of his philosophy. Deletion or neglect of these would leave his world picture incomplete.

itself in motion, that it is necessary, ultimately, to arrive at a being that is unmoved in itself and that consequently an infinite series of moved movers is an impossible supposition. His demonstration is twofold: negative, whereby a regress to infinity in moved movers is shown to be inacceptable since it involves a contradiction: positive, in which it is proved that moved movers postulate the existence of an unmoved being, since of themselves they are insufficient to account for motion.

Negative argument [54]

The assumption of a theoretically possible case ought not to give rise to any impossible result.[55] Yet this is precisely what happens if one assumes an infinity of moved movers. Aristotle takes his example from local motion, but the same reasoning applies to all kinds of motion, whether taken in the restricted sense alone, or extended to the enlarged signification described above. Let A be something that is spatially moved by B. B is also moved by C and that in turn by D and so on to infinity. Now it is clear that when something moves another, the movent and the mobile are together, at the same time, since, as Aristotle has shown, the action of the agent and the passion of the subject moved form one motion. If now the agent is itself moved, and moves only to the extent that it *is* moved, then the motion which it receives and the motion which it, in turn, causes must be at the same time. Thus if a hand by a motion received from the human agent moves a stick and this in turn, a stone, the motion of all three, hand, stick and stone is simultaneous. So too, in the series under question. B is moved at the same time when A is moved, and, for the same reason, when B is in motion, C and D are in motion as are all the members of the series. Consequently the motion of A itself and all the others take place at the same time. But the motion of A, and, in fact, of each member of the putatively infinite series is a finite motion, since each has its defined limits. Each is the motion of a finite mobile subject from a determinable *terminus a quo* to a determinable *terminus ad quem.* And since the motion of A and all the others in finite, the time must also be finite.[56] The movents and the things moved are however, by supposition, infinite in number and so the motion that is composed of all the individual motions is infinite. But we have seen that the motion of A and that of each of the others is simultaneous. Consequently the whole motion must occupy the same time as the motion of A which has been shown to be finite. This means that we are confronted with the impossible situation of an infinite motion taking place in a finite time.

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[54] *Phy.* VII, 1, 242a, 15-243a, 2.

[55] *Ibid.*, 243a, 1: τοῦ γὰρ ἐνδεχομένου τεθέντος οὐδὲν ἄτοπον ἔδει συμβαίνειν.

The argument is not yet conclusive. Aristotle notes that in a finite time it is not repugnant that there should be an infinite number of motions, provided they do not form a unity of essentially subordinated causes which exist all together.[57] The demonstration holds true however of a series of essentially subordinated causes, since these do form a unity. For whatever is locally and corporeally moved primarily and immediately by a mover must either be 'touched' by it (as a stick is touched by the hand) or it must be continuous with it, (as a part is continuous with another part or with a whole). In either of these two ways a mover is always conjoined with the mobile and forms a certain unity with it. Consequently in the case under consideration the infinite series of moved movers would make a unit, a whole, by a certain continuity. Some have urged that since the motion of A, B, C, D, etc. is a motion of finite *mobilia,* it cannot be the motion of an infinite whole. But Aristotle says it makes little difference to the argument whether one suppose the magnitude or unity that is formed be finite or infinite. For either there is a finite magnitude composed of numerically infinite magnitudes whose motion is infinite or there is an infinite magnitude and its motion is in a finite time.[58] In both cases there is an impossibility. Hence, the supposition of an infinite process of mobile movers involves a contradiction. If then a body in motion cannot always be moved by something that is itself in motion there must be a *primum mobile* and a *primum immobile movens.*

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[56] Cf. *Phy.* VI, 7, 237b, 23-238a, 20, where Aristotle proves that a whole finite motion can never occupy a whole infinite time. His argument follows along this line. Let AB be a finite distance, the traversing of which is assumed to take an infinite time. This being granted, the traversing of AE, a finite part of the whole finite stretch AB, can only take a finite time. And if another part equal to AE be taken, this too will occupy only a finite time, in consequence of the original assumption that the traversing of the whole of the finite distance, AB, occupies an infinite time. But in the whole distance, AB, there can be only a finite number of parts equal to AE, since AE is a finite multiple and measure of AB. Since therefore the traversing of each of these parts can take no more than a finite time, there will come a moment when the whole is completely traversed and the time occupied will be the sum of the finite times occupied in passing over each part. Such a sum can never adequate an infinite time and consequently the motion over AB must be accomplished in a finite time.

[57] *Phy.* VII, 2, 242b, 20-24; cf. *Phy.* VIII, 6, 258b, 29-32.

Positive Argument [59]

A movent must be one of two kinds. Either it is not itself responsible for the motion it imparts but stands in need of being moved itself before it can move another (*κινοῦν υπ' ἀλλου κινού-*

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[58] Cf. *Phy.* VI, 7, 238a, 21-31. Here Aristotle reveals the contradiction involved in the supposition that there can be an infinite motion in a finite time. His argument is similar to that whereby he proved that there cannot be a finite motion in an infinite time (see note 56). In a part of the finite time which is taken to be a measure of the whole, only a certain fraction of the infinite magnitude will be traversed, since the assumption is that the traversing of the whole occupies all the time. Again, in another equal part of the time another part of the magnitude will be traversed: similarly in each part of the time that is taken, whether it be equal or unequal to the part originally taken. It makes no difference whether the parts are equal or not, if only each is finite: for it is clear that while the time is exhausted by the subtraction of its parts, the infinite magnitude will not thus be exhausted, since the process of subtraction is finite both in respect of the quantity subtracted and of the number of times a subtraction is made. Consequently the infinite magnitude will not be traversed in a finite time.

[59] *Phy.* VIII, 5, 256a, 4-21, praesertim 17-19. St. Thomas (*In VIII Phy.* 9) comparing the first argument with this one about to be explained, says the latter is the more certain proof (certior via).

μενον); or it *is* responsible for the motion since it is itself unmoved and wants nothing to initiate motion (κινοῦν οὐχ ὑπ' ἀλλου κινούμενον). In the latter case the movent may immediately precede the thing that is moved, that is to say, the last thing in a series which receives motion but communicates none to anything else; or there may be one or several intermediate links in the series between the prime mover and the thing moved. In the latter case the intermediate links are called secondary movers since they move only by being themselves moved by the prime mover. Now that which is moved (τὸ ἔσχατον) is truly said to be moved by both the first and the secondary mover or movers as the case may be. But the motion is more strictly attributed to the first since the first moves the second whereas the second does not move the first. The first moreover may move the last in the series without the secondary mover but the secondary mover cannot move it without the first. If then there is no first or prime mover, there will be no motion of the last in the series nor will there be any movement either receptive or communicative on the part of secondary movers howevermuch these may be multiplied. The multiplication of secondary causes will never dispense with the need of a primary cause since they all exhibit the same essential deficiency, viz. the need of being moved ultimately by something that is itself unmoved. But in an infinite series of such secondary causes, the supposition is that there is no prime unmoved cause. This destroys the reality of motion in the world. For where there is no prime mover there can be no ultimate thing that is moved, nor in fact will there be *anything* that is moving. The supposition therefore is manifestly false. Consequently there must be a Prime Immovable Mover.

Aristotle starting with his principle of causality has thus been forced to this conclusion by the insufficiency of the causes that he saw about him. Nor did his adherence to the theory of the eternity of motion,[60] which at first blush would seem to run counter to this conclusion cause him any embarrassment. The two are perfectly compatible. For even granting the eternity of motion; (2) the nature of time (cf. *Phy.* VIII, 1, 251a, 9-251b, 29). (1) As to the first Aristotle says that if motion were not eternal then the beings that are now in motion either did not exist always and afterwards began to be or they are perpetually existent but were previously at rest. Under the first supposition, there must be a motion prior to that which is taken to be the first, a motion whereby they came to be. This prior motion would itself require both a material and an efficient cause since motion is the actualization of the movable *qua* movable by the action of that which can cause motion. Hence the motion by which the being became a mobile would be prior to that whereby the mobile is moved. Therefore the latter motion would not be the first beginning of motion as it was thought to be. Moreover if there is a becoming of every movable thing as must be supposed if motion is not eternal, it follows that the subject of the prior motion must in turn have had its becoming and so it would continue to infinity. Under the second supposition viz., that the movents and mobiles always existed but were once in a state of quiescence before motion began, it would likewise be necessary to say that there was a motion prior to that which is thought to be the first. For the state of rest is a privation of motion. But there is no privation in a being receptive of a form except through some cause. There must then have been some cause either on the part of an agent or on the part of the mobile itself that is responsible for its rest. While this cause was present rest continued. If therefore at some time a movent begins to move it must be by reason of the fact that the cause of the prior state of rest is removed. But this cannot be except through another motion. Therefore before the motion which is thought to be first there is a prior motion. St. Thomas commenting on this argument (*In VIII Phy.* 2) admits its efficacy to prove that there was no beginning of motion "per viam naturae" since nature and all particular agents require a preexisting subject or matter on which to act. It is not efficacious however when one considers the production of being itself "ex nihilo praeexistente" by the First Efficient Cause of all being Who requires no matter on which to act and Who does not act by way of motion. Consequently prior to what is thought to be the first motion there need not be another motion *if there is creation.* It was because Aristotle failed to arrive at the concept of creation that he insisted on the necessity of eternal motion. (2) As to Aristotle's second argument drawn from the nature of time, St. Thomas notes that it is equally inefficacious. For the Philosopher says that time is unthinkable apart from the moment. And the moment is a kind of middle-point uniting in itself a beginning and an end, a beginning of future time and an end of past time; consequently there must the world and of motion, this does not dispense with the need of an eternally moving cause. Aristotle roundly censures Democritus of Abdera for not bothering to seek for a cause of something that is eternal on the ground that it is absurd to inquire or seek a beginning (i.e., a principle) of the infinite.[61] Democritus equivalently shrugged his shoulders and said, "If things are eternal there is no cause." Aristotle firmly insists, however, that even in eternal things that are in motion the 'originative source' (in the sense of a moving cause) must be present as well as in things that are not eternal,[62] that "if there is to be movement always, there must always be something which initiates it".[63] We see then that the Philosopher has invoked the principle ot causality to account for the motion of animate as well as inanimate beings, eternal as well as temporal. It remains now that we consider Aristotle's concept of the principle of uniform causation.

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[60] It is not necessary to detail the reasons Aristotle adduces to prove the necessity and perpetuity of motion. Briefly they are reduced to two: (1) the nature of motion which requires a previously existing subject of

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always be time. Aquinas points out that the fallacy of this argument rests on an assumption which begs the question, viz. that the moment must always be an end of past time. "Videtur . . . Aristoteles in assumptione hujus medii (i.e. momenti quod est finis praeteriti et principium futuri temporis) supponere sempiternitatem temporis quam debet probare." And he adds: "Omne nunc esse principium et finem temporis concedi non oportet nisi ponatur etiam motum semper esse." Though Aristotle's reasoning is inconclusive its inadequacy does not prove that the world is not eternal since there is no intrinsic repugnance in the possibility of a created world being eternal as the Angelic Doctor remarks in his opusculum, *De Aeternitate Mundi contra Murmurantes.* It could only be repugnant on two scores: either because it is necessary that an efficient cause precede its effect in point of duration ("aut quia oportet ut causa agens praecedat duratione") or because it is necessary that non-beings precede being in duration ("aut quia oportet quod non esse praecedat esse duratione"). Neither of these can be proven. But though the eternity of the world is not *in se* contrary to reason, nevertheless divine revelation, decidedly, and modern science, quite definitely (if we are to take the 'law of entropy' as scientifically established) show that the world, or at least its motion cannot be eternal.

[61] *De Gen. Anim.* II, 6, 742b, 18-23.

[62] *De Gen. et Corr.* II, 9, 335b, 8.

[63] *De Gen.. et Corr.* II, 10, 337a, 17-19.

Chapter VII

CAUSAL NECESSITY

(Uniformity of Causation)

Causal necessity brings to the fore the consideration of the principle of uniform causation, a principle entirely distinct in aristotelian thought from the principle of causality. The latter, we have seen, directly concerned itself with the necessity of a cause for every effect. The principle of law of uniformity, on the other hand, regards the necessity of causal action towards a determinate effect. The principle of causality, as was noted, is analyzed from the notion of the effect, and for Aristotle this meant the nature of the thing *as moved*. The principle of uniformity on the other hand is deduced from the nature of the cause and the source of causal action.

I. Statement of the Principle

To the casual observer, and *a fortiori,* to the intent nature searcher such as Aristotle was, the world for the most part revealed an order and regularity which made life possible and science and wisdom accessible to the human mind. So much was the regularity and the constancy of Nature's action, together with the order and harmony that derived therefrom, connected with the causal and the intelligible that the exceptional, the accidental, the casual were regarded by him as relatively unintelligible and consequently not susceptible of being made into a science, nor reducible to law. Laws, however, deterministic laws, ruled the major part of the physical universe and one of the most important of these laws, at least from a scientific view-point, was that which found its expression in the hierarchic order of causes acting constantly in a fixed, stable unvarying groove,[1] a *law of nature* which has been called the law of uniformity. "It is a law of nature"

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[1] Leon Robin, *La Pensée Grecque,* Paris, La Renaissance du Livre, 1928, p. 344, "Une série hiérarchique de causes voilà en dernière analyse ce qui constitue le determinisme de la nature."

Aristotle notes most briefly, "that the same cause provided it remains in the same condition, always produces the same effect."[2] This statement of the principle of uniform causation, so simple in itself, raises a host of difficult questions. What is the scope of this principle? Whence derived? What its character and rational ground? Is it merely a generalisation from experience? Is it a principle of efficient or final causality? The answers to these questions involve a consideration and a familiarity with such aristotelian concepts as nature, necessity, determinism, contingency, chance and fortune and the like.

II. Scope of Principle

To refine the meaning of the principle and to define its limits one must first understand what Aristotle meant by *Nature* (*φύσις*) when he speaks of this principle as a *"law of Nature"* for, obviously the principle is restricted to *natural beings*. According to the classic definition, "Nature is a source or cause of being moved, and of being at rest in that to which it belongs primarily in virtue of itself and not in virtue of a concomitant attribute."[3] Everything which has such a principle of motion and stationariness (*ἀρχὴ κινήσεως καὶ στάσεως*, 192 b, 14) is said to have a nature or to be a natural being.[4] These include everything composed of matter and form, animals and their parts, plants, simple elements[5] and their inorganic compounds.[6] All such beings, taken *en gros,* are referred to figuratively as Nature,[7] the world of Nature.[8] In this sense, as Mansion notes,[9] the term appears to be personified and to it are attributed in the universe a group of activities and uniform properties which are manifested in an analogous way in the diverse natural beings. For the most part, it is only a figure of style in common usage to express the general facts of the material world. If natures as such have common properties, it is evident that one can say that Nature possesses them; if, for example it is essential that each individual nature acts in view of a particular end, one merely expresses the same thing by saying that Nature pursues an end. Just such a meaning attaches to the word in this question of uniformity, when it is said that nature acts uniformly in the same conditions to produce the same effect. This simply means that each natural cause (i.e. nature regarded as agent), when placed in the same circumstances will regularly act in the same way.

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[2] *De Gen. et Corr.* II, 10, 336a, 27-28: *τὸ γὰρ αὐτὸ καὶ ὡσαύτως ἔχον ἀεὶ τὸ αὐτὸ πέφυκε ποιεῖν*; cf. *De Coelo* II, 13, 295a, 28: *τὰ γὰρ αὐτὰ τῶν αὐτῶν ἀναγκαῖον αἴτια τοῖς αὐτοῖς*; *Phy.* II, 8, 199b, 25: *ἐν δε τοῖς φυσικοῖς ἀεὶ οὕτως, ἀν μή τι ἐμποδίσῃ.*

[3] *Phy.* II, 1, 192b, 20-23: *ὡς οὔσης τῆς φύσεως ἀρχῆς τινὸς καὶ αἰτίας τοῦ κινεῖσθαι καὶ ἠρεμεῖν ἐν ᾧ ὑπάρχει πρώτως καθ' αὐτὸ καὶ μὴ κατὰ συμβεβηκός.* Cf. *Met.* IV (Δ) 4, praesertim, 1014b, 18-25. For an elucidation of this primary meaning of nature and of the secondary meanings derived therefrom, the reader is referred to O. Hamelin, *Aristote, Physique II, Commentaire*, pp. 37-39 (Paris, J. Vrin, 1931); J. Marling, *The Order of Nature* (Washington, Catholic University of America, 1934) pp. 1-5; A. Mansion, *Introduction à la Physique Aristotélicienne*, pp. 39-50 (Louvain, Institut Supérieur de Philosophie, 1913).

[4] It would be a mistake to suppose that the definition of the term nature, by the use of the phrase *ἀρχὴ κινήσεως καὶ στάσεως* limits the word to the efficient causality of beings. Potencies not only active but also passive are "sources of movement" as Aristotle clearly notes in his defi-

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nition of δύναμις, *Met.* IV, 12, 1019, 19-20: ἡ μὲν οὖν ὅλως ἀρχὴ μεταβολῆς ἢ κινήσεως λέγεται δύναμις ἐν ἑτέρῳ ᾖ ἕτερον, ἡ δ' ὑφ' ἑτέρῳ ᾖ ἕτερον. Consequently matter as a passive potency would come under the category of "sources of movement" and therefore is included in the concept nature. That form and end are likewise "sources of movement" need not be demonstrated. Their role in change has been described (see above pp. 33-40). The definition of nature, therefore, embraces all four causes. Nevertheless if nature is looked upon as acting or instituting change, as it is in the principle of uniformity, it is clearly limited to nature as efficient cause.

[5] *Phy.* II, 1, 192b, 9-10.

[6] *Ibid.* 19-20: Elsewhere Aristotle lists the stars, the planets and the ether as natural beings (cf. *Met.* VI, 2, 1028b, 8-13; VII, 1, 1042a, 7-11), though with less truth can these be said to have an internal ἀρχὴ στάσεως since they are eternally in motion and incorruptible.

[7] In such expressions as "Nature does nothing in vain" (*De Coelo,* II, 9, 291b, 13), "Nature always strives after the better" (*De Gen. et Corr.* II, 10, 336b, 27), "Nature establishes a certain order" (*De Coelo* II, 12, 293a, 3) etc.

[8] *Phy.* I, 6, 189a, 15.

[9] *Op. cit.,* pp. 50-51.

Excluded from the principle then are causes which are not natural. What these other efficient non-natural causes are, Aristotle has indicated in several places. When he enumerates the efficient causes of things that come to be, he sets forth what, in his opinion, evidently forms a complete disjunction. Effects are produced either by nature (φύσις), or reason (νοῦς), [the more particular form of which is art (τέχνη)], or chance (αὐτόματον).[10] All three agree in that they are considered to be efficient causes.[11] Nature and art or intelligence further agree on that both tend to an end, whereas chance in itself is either ateleological or antiteleological with respect to the nature or subject affected. Both art and chance, however, are commonly opposed to nature in the sense that neither is determined to act, nor to act in a necessarily uniform manner. Intelligence and art are indeed determining causes but they are self-determining if not of the end at least with respect to the means toward the end. Both do, moreover, as a rule, act uniformly but not necessarily so.[12] Chance on the other hand is an indefinite, indeterminate and indetermining cause. Finally Nature is opposed to Intelligence and Chance in that its effects (after its actions have been once observed) are anteriorly predictable, if the same conditions are present, so that it can be predicted what will be the final issue of the particular nature's acts. The effects, however, of Intelligence or Art and Chance are, prior to their actions, immanifest to man's mind, obscure to his calculations and predictions, in fine, indeterminable, even granting the same conditions surrounding their actions.

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[10] Cf. *Met.* VI, 7, 1032a, 12: τῶν δὲ γιγνομένων τὰ μὲν φύσει γίγνεται, τὰ δε τέχνῃ, τὰ δ' ἀπὸ ταὐτόματου; *Phy.* II, 6, 198a, 10: αὐτόματον, τύχη, νοῦς, φύσις; *Post. Anal.* II, 11, 95a, 7: τύχη, φύσις, τέχνη. See also *Met.* XI, 3, 1070a, 6. The word τὸ αὐτόματον is dubiously rendered in the Oxford edition and other English versions by the word "spontaneity". This translation is misleading, for as Vincent Cioffari observes in *Fortune and Fate from Democritus to St. Thomas Aquinas* (N. Y., Columbia University, 1935) it is often used by other scholars to designate the activity of free will (p. 123). The better translation seems to be "chance", especially since it is closely allied with the word τύχη (fortune) a species of αὐτόματον in the sphere of human activity.

[11] It should be noted here and borne in mind throughout that these three names do not represent hypostatized beings. Nature, Intelligence or Art and Chance are not efficient causes in themselves. Rather is it the being of nature, the intelligent being, the artist who are efficient causes, Similarly with Chance. Chance causality is in beings of nature, accidentally, to be sure but nevertheless really. Cf. *Phy.* II, 1, 192b, 32-35; 6, 198a, 2. See also Mansion, *op. cit.*, pp. 124, 125, 128.

[12] If Aristotle did not think so, he would never have written his books on the practical sciences involving human conduct, contained in the Eudemian and Nichomachean Ethics, as well as in his Poetics. Although

In summary then, we see that the principle of uniform causation definitely does not include the free will actions of man any more than the fortuitous occurrences we call chance. It applies exclusively to natural beings, natural agents.

III. Derivation of the Principle

1. *Psychological Process leading to the Principle*

a. Fact of Uniformity, Order, Finality

Aristotle nowhere has entered into a disquisition on the mental processes whereby he arrived at the principle of uniformity. The principle is merely stated, with numerous factual confirmations to be sure, but never with an attempt in any one place by arguments, soritical or otherwise to explain the derivation of the principle. However, from an acquaintance with his theory of

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he did not discuss at length the freedom of the human will, he has spoken in several places of the self-determining character of rational potencies (cf. *Met.* VIII, 2, 1046a, 36 ff; 6, 1048a, 1 ff; 8, 1050b, 30 ff; *Phy.* VIII, 1, 251a, 28 ff). He has too, explicitly credited man with the power of free choice (*ἀφαιρέσις*) in acts that are formally human and moral (*Eth. Nic.* III, 5, 1113a, 9). He has called man the principle, the father and lord of his actions (cf. Bonitz, *Ind.* 633b, 43) all of which implies freedom. This freedom is, moreover, a basic presumption of his ethics and poetics. In addition a science of these was possible since man with his freedom, and in fact, because of it, acted uniformly. Hamelin believes it probable that Aristotle maintained the same opinion which Alexander later voiced openly, viz. that the free will insofar as it subjects man's acts to reason is an effort to reestablish in us and in our conduct the uniformity which characterizes eternal and necessary natures (cf. Hamelin, *Le Système d'Aristote,* pp. 391-392).

knowledge, his description of psychological processes, his realistic approach to being, one is able to suggest with a marked degree of probability the manner in which the principle took shape in his mind. In this, it is necessary to distinguish the fact of uniformity from the principle. The former is the starting-point, the latter, the term of this particular mental process. Constantly recurring sense phenomena, the rhythmic movement of the outer sphere of fixed stars, the cyclic motion of the planets, the rotatory course of the sun in its elliptical orb, the consequent periodicity of generation and corruption, life and death upon the earth, all these have supplied Aristotle with the fact of uniformity. But the principle goes deeper than and beyond the mere fact. The fact gives rise to the intellectual perception of *order* in the world —an order that consists not only in the harmony, method, and systematic arrangement of parts in a whole, but also in an ordination to an end, in purposiveness which individual parts and beings have towards an end.[13] Order then necessarily involves *finality*. For order may be defined negatively as the absence of haphazard and chance, positively as the tendency toward an end.[14] This close assimilation between order and finality is so evident to Aristotle that, as Mansion says, it is not made the object of an explicit affirmation but must be gathered instinctively, as it were, from the passages wherein he employs the two terms indifferently.[15]

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[13] Cf. *De Mundo* 2, 391b, 9-11: κόσμος μὲν οὖν ἐστὶ συστημα ἐξ οὐρανοῦ καὶ γῆς καὶ τῶν ἐν τούτοις περιεχομένων φύσεων. λέγεται δὲ καὶ ἑτέρως κόσμος ἡ τῶν ὅλων τάξις τε καὶ διακόσμησις . . . While it recognized that the περί κόσμου does not purport to be a genuine work of Aristoteles', critical analysis attributing it to Poseidon, nevertheless many of its propositions reflect the mind of the Stagirite. Such is the case here. The words τάξις and διακόσμησις definitely connote an arrangement or order determined to an end. The σύστημα is simply the mirroring of this positive determination.

[14] Cf. *De Part. Anim.* I, 5, 645a, 23: τὸ γὰρ μὴ τυχόντως ἀλλ' ἕνεκά τινος ἐν τοῖς τῆς φύσεως ἔργοις ἐστὶ καὶ μάλιστα.

[15] *Op. cit.*, p. 160. When Aristotle uses such expressions as ἀλλὰ μὴν οὐδέν γε ἄτακτον τῶν φύσει καὶ κατὰ φύσιν. ἡ γὰρ φύσις αἰτία πᾶσι τάξεως (*Phy.* VIII, 1, 252a, 11-12); ἡ γὰρ τάξις ἡ οἰκεία των αἰσθητῷν φύσις ἐστίν (*De Coelo* III, 2, 301a, 5); ἀεὶ τὸ κατὰ φύσιν ἔχει τάξιν (*De Gen. Anim.*.

b. Difference in Finality of Reason and Nature

Now finality, for the Philosopher is manifested in two distinct realms, that of *Nous* and that of *Nature*. The former is exclusively the domain of intelligence and art. The latter, while it is compared to art,[16] while it reflects intelligence,[17] and while it is ultimately attributed, at least implicitly in its order and purposiveness to an intelligent substance which is eternal and independent and permanent,[18] is nevertheless restricted to the sphere of what we have called natural beings.[19] The distinction between these two classes is exhibited best by the character of the purposiveness found in each. As is true in all finality, the end towards which activity is directed is a good, apparent or real.[20] It is only under this aspect that there is ever a tendency towards an end. Illustrative of this connection between the end and the good which is the perfection of the individual's action, is the close similarity between the terms, end (τέλος) and the perfect (τέλειον). The perfection which accrues to the agent by action may be either an accidental good that is external (as making a house) or internal (as acquiring a new habit or virtue); or it may be a substantial good (as the generation of a new substance, specifically the same). Each of these in turn is sought as an end. The good, the perfect, the end, then, are united as three different phases of one and the same thing, viz. the objective of the agent's striving.

III, 10, 760a, 31), he reveals his identification of order in nature with finality, for nature is an internal principle of movement towards an end (*Phy.* II, 8, 199b, 15.)

b. Difference between the Finality of Reason and that of Nature

[16] *Phy.* II, 8, 199a, 15-20.

[17] *Ibid.* 20-30.

[18] *Met.* X, 2, 1060a, 26.

[19] See above, pp. 138 ff. It is not to be thought that the rational being, man, is thereby an unnatural being. On the contrary, he too, is a nature. But when, in this connection, he is grouped with inanimate nature and animate nature of the plant and animal kingdom, it is from the viewpoint of that which he possesses in common with these lower realms. His rational nature with its intellectual and volitional activity, taken formally, is prescinded from.

[20] Cf. *Eth. Nich.* I, 1, 1094a, 3.

Now in intelligent beings, in the sphere of actions that are formally voluntary, (as when there is a question of moral action or artistic production), there is a certain latitude with respect to the end, either in establishing it as an end, or in seeking it, or in both. In other words the intelligent being as such, may either determine the end (as the desire to make a statue rather than a house) and here there may be several ways at hand of compassing the end: or, if the end is already determined (as presumably a life of virtue is for man), the intelligent being is *physically* free to seek it or not, to seek it in this way or that. This self determination as to end or action or specification of means toward the end is due to the rational being by virtue of rational potencies which are not predetermined to a specific action, but which, by the fact that they are rational, are capable of contrary actions.[21] The effects of such potencies then are not necessitated, for, being potencies to contrary effects, if they were subject to a determination of action, they would necessarily produce contrary effects at the same time—an impossible supposition in Aristotle's mind.[22] Consequently freedom or self-determination within certain limits belongs to intelligent beings in virtue of rational appetite called the will, a potency and property of their rational natures.

The case, however, is far different in the realm of what Aristotle has called natural beings. Here purposiveness is displayed in a quite different manner. The establishment of an end, for one thing, is beyond the competency of the natural being as such. It cannot determine for itself the end or ends substantial and accidental to which it may tend. These are predetermined, preestablished for the particular being in view of and in accordance with its specific or individual nature.[23] The evidence for this is the following (and this is the second major differentiation between purposiveness of the natural being and that of the intelligent being). The tendency toward the end or several ends which a being may have and which are determined for its nature reveals itself to be unvarying and undeviating.[24] This can mean but one thing. The constant and uniform progress towards a determined end, must come from a nature possessed of "irrational potencies", from a nature, therefore, determined toward the pre-established end, to be reached by potencies ineluctably allergic to this end. For those properties of a nature which are called irrational potencies are such because they are incapable of inclining to anything but that end to which they are in potency.[25] When agents with such potencies meet with a patient in a way appropriate to the potencies in question, they cannot refrain from acting while the patient cannot but suffer action.[26] The wholesome cannot but produce health, the calorific cannot but make hot, the frigorific cannot but chill.[27] Thus both the potencies and the nature from which they flow are fixed in their mode of operation, a fixation that can be said to be imposed by reason of the determined form which is, or is to be, the end.

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[21] *Met.* VIII, 2, 1046b, 4-5: αἱ μὲν μετὰ λόγου πᾶσαι (ποιητικαὶ δυνάμεις) τῶν ἐναντίων αἱ αὐταί. Cf. *ibid.*, 5, 1048a, 8-9.

[22] *Met.* VIII, 5, 1048a, 8-10: ἐκεῖναι (i.e. αἱ δυνάμεις μετὰ λόγου) δὲ τῶν ἐναντίων, ὥστε ἅμα ποιήσει τἀναντία. τοῦτο δὲ ἀδύνατον. Aristotle does however concede that a point is reached where the effects of even these rational potencies is necessitated, but this, only when the will is brought into play, i.e. when that which has a rational potency actually "desires that for which it has a potency and in the circumstances in which it has the potency". (*Ibid.*, 13-14: τὸ δυνατὸν κατὰ λόγον ἅπαν ἀνάγκη, ὅταν ὀρέγηται, οὗ τ'ἔχει τὴν δύναμιν καὶ ὡς ἔχει τοῦτο ποιεῖν.

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[23] The more probing question, "Why are these beings of such and such a specific nature with such and such determined ends?" is more difficult to answer. Mansion (*op. cit.,* pp. 157 ff.) would have us believe that Aristotle did not consider this question or was successfully challenged by it. He definitely proves that Aristotle was not pantheistic, that he did not appeal to a Universal Nature, a Demiurge nor an Anima Mundi to explain the determination of individual natures. But when it comes to the question whether the determination of natural beings, and the uniformity of their actions can ultimately be attributed to God, he answers in the negative. This is the conclusion to which the author was logically forced, because, following Zeller, Gomperz, Piat et al., he was convinced that the God of Aristotle was not an efficient cause of movement in the world. He, therefore, discounts those passages in which such efficiency seems to be attributed to God and when the Philosopher couples θέος with φύσις as moving causes, he makes the statement that this has no more value "que celle d'une image assez heureuse" (p. 59). But if, as we have attempted to prove, Aristotle did regard the deity as the prime moving cause, would not the answer to the question as originally stated be implied therein? Would not these natures be what they are with the determined ends they have, because in the last analysis God moves them not merely as the Final Cause, but determines what they are to be and makes them so, as Moving Cause? It is true that the Stagirite at best saw this only vaguely because of the admitted difficulty connected with the absolute immutability of God. It is true, also, that because of this apparent antinomy he failed to see it through with clarity and complete satisfaction and that we must indeed "guard against the facile temptation of reading into the Stagirite's teaching the well rounded thought of St. Thomas". (Marling, *op. cit.,* p. 53). But this much is certain, Aristotle considered the question and sought the ultimate rational ground of essences and natures beyond the essences and natures themselves. When, e.g., he asks why it is that light beings rise and heavy beings fall, he answers that they do so *"by that which brought the thing into existence and made it light or heavy"* (*Phy.* VIII, 4, 255b, 35ff). It is certain, moreover, that he sought the explanation of order (which implies determinate natures and determined modes of operation) in something apart, something eternal and permanent. (*Met.* X, 2, 1060a, 26). Is it reading too much into his thought to say then that the ultimate ground of nature rests in the deity, if such deity is both the efficient and final cause of movement in the world?

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[24] It is to be noted that it is the "tendency" that is unvarying, *not* the realization of that tendency. The realization, perfection or fulfilment of the tendency may be frustrated: (1) by necessity of coaction or violence, (2) by necessity of the matter which, as we shall see, means the unassimilability of the matter to the form; (3) by the deficiency of the power of the natural form which is another way of regarding the recalcitrancy of the matter in resisting the power of nature seeking to impose its form; or finally (4) by hazard or chance. However, in spite of this ineffectuality with respect to attaining its proper end, the tendency or appetite for that end is still there.

[25] *Met.* VIII, 2, 1046b, 5-6: *αἱ δ' ἄλογοι μία ἑνός, οἷον το θερμὸν τοῦ θερμαίνειν μόνον*; *Ibid.*, 5, 1048a, 8: *αὗται* (i.e., *αἱ δυνάμεις ἄλογοι*) *μὲν γὰρ πᾶσαι μία ἑνὸς ποιητικη*; cf. *Phy.* VIII, 1, 251a, 28 ff, *De Interp.* 13, 22b, 38-23a, 3.

[26] *Met.* VIII, 5, 1048a, 5-7: *τὰς μὲν τοιαύτας* (i.e., *ἄλογεις*) *δυνάμεις ἀνάγκη, ὅταν ὡς δύνανται τὸ ποιητικὸν καὶ τὸ παθητικὸν πλησιάζωσι, τὸ μὲν ποιεῖν τὸ δὲ πάσχειν.* The insertion of the phrase *ὡς δύνανται* indicates that the circumstances must be such as are propitious and necessary for action. This is a valuable phrase and accounts for the proviso that is placed in the principle of uniformity. The natural cause will necessarily act in the same way *provided the conditions are the same.*

[27] *Met.* VIII, 2, 1046b, 18-19.

c. Final Determinism in Nature

According to Aristotle, then, the purposiveness seen in natural beings is a determined purposiveness. The determination reflected in the uniformity of natural processes derives primarily from that first and most dominant[28] of all causes, the final cause. All processes or becomings are attendant on being, and a certain fullness of being, substantial or accidentaly is the end term of every process. This is what the Philosopher means by saying: "When we are dealing with definite and ordered products of Nature, we must not say that each *is* of a certain quality because it *becomes* so but *rather* that they *become* so because they *are* so and so, for the process of becoming or development attends upon Being and *is for the sake of Being* and not vice-versa."[29] For he adds: "Everything then exists for a final cause".[30] The process of development or action is for an end and when the process appears determined it is because the end has determined it.

Such is the thesis of teleological determinism that Aristotle opposes to the material, and at times, efficient determinism of his predecessors, chiefly Empedocles and Democritus. These radical determinists, failing to arrive at the concept of final cause, had attributed the final product to the necessity itself of the process of production, i.e. to the inherent necessity of matter and whatever active qualities they thought it to possess. Thus, using Aristotle's analogy, they would charge the formation of the wall of a house, (stone foundations, baked earth or brick walls and wooden roof) to the necessity of stones, earth and wood which determine their allocation in this particular fashion, the heaviest at the bottom, the lighter on top of this and the lightest surmounting all.[31] The Stagirite, with his concept of final cause placed the determination of the process not primarily in the antecedents which necessitate the consequent but rather in the character of the consequent which anteriorly necessitates the antecedents. That is to say, it is the end which specifies, allots, determines the material to be used as well as the course which the production will and does follow.[32] Thus, "if a house or other such objects is to be realized", Aristotle says, "it is necessary that such and such material shall exist; and it is necessary that first this and then that shall be produced, and first this and that be set in motion and so on in continuous succession until the end and final result is reached *for the sake of which each prior thing is produced and exists.*" [33] As it is in art, so too in nature, with this to be added that in Aristotle's teaching "the good end and final cause" have an even more dominant role than in the former.[34]

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[28] Cf. *De Part. Anim.* I, 1, 639b, 14, 22.

[29] *De Gen. Anim.* V, 1, 778b, 1-6.

[30] *Ibid.* 10: ἔστι μὲν οὖν ἕκαστον ἕνεκά του.

[31] *Phy.* II, 9, 200a, 1-5.

d. Natural Efficient Cause

Efficient causal necessity in nature follows as a logical corollary from final determinism. It is the nature as efficient cause which fashions the matter in view of the end, and it does this rigorously, without divagation, by means of its active, irrational, one-way potencies, when these are in their proper milieu. One sees now that the Philosopher has arrived at an adequate and comprehensive concept of a natural efficient cause. It is the *nature* regarded as a *physical, necessary, non-free cause, possessed of irrational potencies, which, determined by reason of an end, always acts with a fixity of operation under similar circumstances*:[35] or as Aristotle himself has expressed it, "those things are natural [36] which by a continuous movement originated from an internal principle, arrive at some end; the same end is not reached from every principle; nor is any chance end, but always the tendency in each is toward the same end if there is no impediment".[37]

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[32] *Ibid.* 5 ff.

[33] *De Part. Anim.* I, 1, 639b, 25-30. Cf. *Phy.* II, 9, 200a, 31-b, 4.

[34] *Ibid.* 639b, 20. It is particularly throughout this treatise and others of a biological character that he points out the dominant role of final cause with respect to organic development.

[35] The latter phrase "under similar circumstances" would follow at least implicitly from the statement that the irrational potency must be in circumstances appropriate to the action of that potency if it is to act. Cf. *Met.* VIII, 5, 1048a, 5-7.

[36] Evidently we must understand "efficient cause" here, as the following words clearly show.

e. Formulation of the Principal of Uniformity

From the consideration of the nature and the definition of a natural moving cause to the formulation of the principle of uniform efficient causation is but a step. We have the concept of a determined natural physical cause. We have the notion of effect. The idea of similarity of effect and similarity of circumstances is derived from the repetition of action which produces such effects. The principle of uniform causation can thus be formulated. *The same natural, physical, non-free cause—(such a cause viz. which tends unvaryingly and invariably towards a pre-established end by reason of the determining character of that end, and by virtue of an irrational active potency)—provided it remain in the same condition in an unchanged milieu will always and necessarily produce the same effect.* All of this is contained by implication in Aristotle's rather terse expression: "It is a law of nature that same cause provided it remain in the same condition, always produces the same effect." [38]

2. *Final Determinism and Causal Necessity*

Before considering the character and validity of this principle let us return for further explication to the problem of final determinism, its expression in the world of nature, its relation to causal necessity. The question may arise: has Aristotle replaced the rigorous, radical antecedent determinism of his predecessors, by an equally rigid exceptionless determinism of the end? Has absolute necessity of the final cause taken the place of absolute necessity of the material cause? To answer these questions it is imperative that one clarify the meaning of the various and apparently contradictory uses of the term "necessity".

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[37] *Phy.* II, 8, 199b, 15 ff: φύσει γάρ ὅσα ἀπό τινος ἐν αὐτοῖς ἀρχῆς συνεχῶς κινούμενα αφικνεῖται εἴς τι τέλος. ἀφ' ἑκάστης δὲ οὐ τὸ αὐτὸ ἑκάστοις οὐδὲ τὸ τυχόν, ἀεὶ μέντοι ἐπὶ τὸ αὐτὸ, ἂν μή τι ἐμποδίσῃ. The word τέλος has been rendered as "end" in preference to the word "completion" of the Oxford translation. For the rest the latter translation is maintained.

[38] *De Gen. et Corr.* II, 10, 336a, 27, 28.

a. Meaning and Application of the Term "Necessity"

Necessity in its primary, strict and predominant sense,[39] from which all others are somehow derived,[40] is the impossibility of being otherwise.[41] This may apply to cognitions, principles of being, actual essences, or facts.[42] Cognitions are simply or absolutely necessary when they depend on nothing else in the same order but are *per se* certain. Such for instance are the prime immediate principles of thought (ἄμεσοι ἀρχαί),[43] as the principles of contradiction, of identity and of the excluded middle. They are necessary in themselves and have no cause of their necessity outside of themselves.[44] They are anapodictic, indemonstrable[45] but *per se* evident by an analysis of their terms. There is a necessity too in the discursive reasoning found in syllogisms which Aristotle as a logician stressed. The purely formal necessity proper to the syllogistic form is that which consists in the unavoidable conclusion to a third proposition after two theses, linked by a middle term have been set forth. This, ideally, should obtain regardless of the real or metaphysical value of the premisses. That is to say, the inherent necessity in the logical chain ought to exist whatever be the metaphysical character of the premises i.e. irrespective of whether they be propositions of fact, necessary propositions or simply possible. But, as Jacques Chevalier observes, Aristotle in spite of constant efforts in his

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[39] *Met.* IV (Δ) 5, 1016b, 12: τὸ πρῶτον καὶ κυρίως ἀναγκαῖον.

[40] *Ibid.* 1015a, 34.

[41] *Ibid.*, 1015a, 34: ἔτι τὸ μὴ ἐνδεχόμενον ἄλλως ἔχειν ἀναγκαῖόν φαμεν οὕτως ἔχειν. Cf. *ibid.*, III, 4, 1006b, 31; 5, 1010b, 28; V, 2, 1026b, 27; XI, 7, 1072b, 12.

[42] By "facts" we would mean the reciprocal relations of beings resulting from their movements or actions. It is the necessity that attends on facts that would naturally be our major concern in the consideration on determinism.

[43] Cf. Hermannus Bonitz, *Comm. in Arist. Metaphysica,* vol. II, *Aristotelis Metaphysica,* Bonn, Marcus, 1849, p. 232.

[44] *Post. Anal.* II, 9, 93b, 21.

[45] *Ibid.* I, 2, 72a, 15; 3, 72b, 20 ff.

Analytics and Hermeneutics never quite succeeded in establishing the divorce of formal logical necessity and metaphysical necessity.[46] He is constantly drawing the logical toward the ontological.[47] He recognizes apodictic value in the logical nexus only if it expresses an ontological relation. Whatever vitiating influence this may have had on the system of the Philosopher need not concern us here. What is of interest is that for him demonstrated propositions by way of syllogistic reasoning have only a hypothetical necessity. They are necessary *if* the principles whence they are derived are necessarily true in the real or ontological order. Necessity in the order of cognition is therefore derived from necessity in principles of being, in actual essences or in facts. So true is this that in a sense the prime immediate principles of thought themselves are hypothetically necessary, for while they are prime and independent in the order of thought, they depend in their certainty on the order of being. Thus the logical impossibility of *affirming* and *denying* at the same time one and the same thing is based on the ontological impossibility that one and the same subject should have contrary attributes.[48] That the prime principles of being themselves are absolutely necessary need not be enlarged upon.

Passing to actual essences we counter absolute and hypothetical necessity again. Here *ananke* becomes synonymous with eternity.[49] Primary substances[50] are eternal and absolutely necessary if they contain no intrinsic cause of dissolution, that is to say, if they contain no matter by reason of which they are corruptible. Thus besides the Prime Mover who is Pure Act and the immaterial movers of the celestial bodies, Aristotle would hold that the stars and planets themselves were absolutely necessary and eternal because although these are composed of matter (aether) it is, as we have seen, a matter that is not a cause of dissolution. In addition to the absolute necessity of these *individual* substances there is also in Aristotle's teaching a hypothetical necessity of substance, but it is a hypothetical necessity of *secondary* substance in the sphere of beings which, as individuals, are contingent and perishable by reason of matter. Thus while this Socrates and this horse possess no absolute necessity, man, horse, animals in general as well as specific elements possess a quasi-absolute necessity. It consists in the nascency of beings from beings specifically the same which will recur constantly because God has determined the continuity of the species through the perennial phases of generation and corruption. This uninterruptedness of coming-to-be and passing-away with the resultant palingenesis of species is a "simulacrum" of the absolute *ananke* and eternity of imperishable substances. It is the alternative that God adopted to fulfil the perfection of the universe[51] for beings which individually were not to possess existence with absolute necessity. Consequently this hypothetical necessity of secondary substances is the nearest approach to absolute necessity that they can possess.

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[46] *La Notion du Nécessaire chez Aristote et chez ses Prédécesseurs,* Paris, Felix Alcan, 1915, pp. 112 ff..

[47] *Ibid.* p. 177.

[48] *Met.* III, 6, 1011b, 13-24. Cf. Chevalier, *op. cit.,* p. 109, n. 1.

[49] Cf. *De Gen. et Corr.* II, 11, 338a, 1-2: ὥστ' εἰ ἔστιν ἐξ ἀνάγκης, ἀΐδιόν ἐστι καὶ εἰ ἀΐδιον ἐξ ἀνάγκης.

[50] I.e., individual substances as opposed to secondary or universal substances. Cf. *Categ.* 5, 1b, 11 ff.

This extended application of necessity to periodicity of motion and eternal return leads naturally to its use in relation to facts or occurrences. Here in the first place it becomes synonomous with determined motion to an end. The attainment of an end is the hypothesis on which depends the necessity in the antecedents, both static (material cause) and dynamic (efficient cause) which lead to an end. *If* the end is to be attained, *if* a being is to arrive at its perfection or good, certain definite predispositions are required. These conditions (*συναίτια*) — among which are to be listed *contact, dispositions* and *absence of impediment*—are then hypothetically necessary for the end.[52] They do not determine the necessity of the end, but on the contrary the end determines their necessity. Parenthetically, it must be emphasized with Hamelin that the necessary is not what necessitates but what is necessitated by another.[53] Theoretically all determination toward an end is hypothetical. The determination is there *if* the end is to be reached.

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[51] *De Gen. et Corr.* II, 10, 336b. 31 ff: *τῷ λεπομένῳ τρόπῳ συνεπλήρωσε τὸ ὅλον ὁ θεός, ἐντελεχῆ ποιήσας τὴν γένεσιν.*

[52] *Met.* IV, 5, 1015a, 21. Aristotle gives here only one example of conditions hypothetically necessary for an end, viz. nourishment for the life of animals. But that there are many more such conditions is obvious.

But the question arises, *must* the end be reached *at all times?* This further resolves itself into the question *must* the conditions be *always present* in natural beings, (which, if present, would necessarily entrain the attainment of the end due to the latters' determination)? The response to these questions is contained by virtual implication in a statement of fact to which Aristotle frequently appeals. Things happen either always (with absolute necessity) or for the most part (normally, regularly) or rarely.[54] Those events which take place rarely are not due to nature but are exceptions to nature, accidental or chance occurrences. Those facts that owe their origin to nature, however, take place uniformly. And this may be either *always* or *usually*.[55] Obviously it is in natural phenomena which take place *always* that we are to look for the exceptionless presence of the conditions necessary for the end. On the other hand it is in natural regular occurrences which do not take place *always* but *for the most part* that we shall find a situation where the conditions need not be verified, and where consequently the end need not be attained. This latter type of phenomena merits further discussion for it brings to

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Clearly contact, dispositions (of the potential causes) and absence of impediment are considered among conditions. Cf. above, pp. 67-73, Conditions for efficiency.

[53] *Physique* II, *Commentaire*, p. 164: " . . . le nécessaire veut dire . . . non pas ce qui nécessite, mais ce qui est conditionné et nécessité." Cf. *ibid.*, p. 170.

[54] Cf. *Phy.* II, 5, 196b, 10 ff; 197a, 19, 34; 8, 199b, 24; *De Gen. et Corr.* II, 6, 333b, 4; *De Gen. Anim.* IV, 4, 770b, 9; *Met.* X, 8, 1064b, 31 ff; *Rhet.* I, 10, 1369a, 35-b, 1. For further references see Mansion, *op. cit.*, p. 61, n. 1.

[55] *Rhet.* I, 10, 1369a, 35-b, 1: φύσει δὲ ὅσων ἥ τ' αἰτία ἐν αὑτοῖς καὶ τεταγμένη. ἢ γὰρ ἀεὶ ἢ ὡς ἐπὶ τὸ πολὺ ὡσαύτως ἀποβαίνει.

light the application of the term "necessity" to *matter* and *violence* in a sense opposed to the necessity determined by the end. For the present, however, let us consider the class of natural events which occur constantly, with absolute necessity, wherein the determination of the end is complemented by the necessary presence of the conditions requisite for the end.

According to Aristotle, such a state is realized only in connection with the circular movement that is eternal and therefore continuous and uninterrupted. Here there exists an absolutely necessary reciprocal nexus between the antecedents in the subject capable of such motion and the motion itself. The latter determines the former and the former exists necessarily and tends to or possesses the later. Let us illustrate. In the movements of the imperishable bodies of the superterrestrial world, there appeared to be exceptionless determination and necessity. The Philosopher saw that the only movement of which these bodies were capable (local motion) was the primary and perfect type of all motion in that it is circular, single, continuous or uninterrupted and eternal.[56] The motion of such natures accordingly postulated bodies composed of a stuff that is ingenerable and incorruptible, unalterable and capable of neither increase nor decrease, a stuff that is eternal, a matter that is neither light nor heavy, veering neither to nor away from the center, a matter, therefore, to which this revolutionary motion about a center is alone proper and natural, a matter that could pursue its cyclic course, effortless, without constraint, suffering neither violence nor impediment, perfectly tractable to its equally eternal though immaterial mover. Such was the aether of which all astral bodies and planets were thought to be composed.[57] Their perfect motion entailed perfect matter and this in turn effectually and eternally possessed the perfect motion. Between the stars and planets, then, and their perfectly ordered movements in the concentric spheres of the celestial world there was, according to

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[56] Cf. *Phy.* VIII, 1 and 8—where Aristotle proves that some motion is eternal (chapter 1) and this eternal motion must be circular (chapter 8).

[57] Cf. *De Coelo* I, 1, 2, 3, 4.

Aristotle, an absolute necessary reciprocal relation. That is to say, one could conclude with as equal necessity from the existence of the antecedents (bodies of this divine stuff) to the consequents (perfect rotatory motion) as from the consequents of the antecedents. The conditions for such motion are therefore necessarily present and necessarily postulate the motion itself just as the end determines the conditions.

Similarly, there is another type of cyclic motion wherein Aristotle saw the grounds for maintaining an absolute necessity. It is in the indefinite repetition of the invariable cycle of coming-to-be, i.e., in the eternal return of phenomena such as the sequence of seasons, variations in the atmosphere, rain, winds, etc., and the eternal palingenesis of species to which we have already alluded.[58] These approach the absolute necessity of the movements of the stars and planets precisely because their apparitions are bound up with the heavenly revolutions themselves and are as a consequence eternally cyclical, forever returning upon themselves. There is this difference, however, as Mansion rightly notes.[59] In the movements of the stars they always remain numerically identical with themselves and their movements share this identity. Not so, however, with natures subject to generation and corruption. While they are reproduced necessarily it is not this individual member that must necessarily come to be, but it is the species or specific form which is eternally represented "in the succession of its perishing and individual embodiments." [60] This absolute necessity, therefore, characteristic of periodicity and eternal return, holds good only on the broad general plane of *specific* reproduction. While the end, however, which begets the necessity of antecedents is itself necessary in its specific reality, it is not necessary in its individual reality. If such a horse or if a particular animal must exist then its generation must have such and such a determined particular evolution. But the fact is that such a horse and such an animal *need not*

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[58] *De Gen. et Corr.* II, 11.

[59] *Op. cit.,* pp. 191-192.

[60] *De Gen. et Corr.* II, 11, 338b, 13, Oxford trans., note 1.

exist. It is only necessary that the species horse and the species of the particular animal be represented in the world.[61] This necessity however is only an attenuated shadow of the absolute necessity of the rotatory movements on which it depends, since the stars and planets pass through their successive stages and return upon themselves retaining always their individual numeric identity.

Turning now to the class of natural phenomena which happen not always but for the most part, we find an absence of absolute necessity. This deficiency does not destroy the actual uniformity for the vast majority of natural occurrences. Uniformity prevails in the world of our general experience. Natural efficient causes, determined with hypothetical necessity by the end and capable by virtue of non-rational potencies of attaining the end, actually exist and function normally. Natural material causes similarly necessitated by the end and, for that reason, amenable to the operation of the efficient cause tending to the end likewise exist and ordinarily submit to the influence of nature as agent. Thus the end which hypothetically determines these causes, as well as the conditions surrounding them which are necessary for its attainment, are regularly realized in the world of nature. However, Aristotle was forced to recognize the fact that there are exceptions to the general realization of the end. Objects by nature heavy sometimes rise, beings by nature light sometimes fall.[62] Just as mistakes come to pass in the operations of art as when a grammarian makes an error in writing and a doctor makes out a wrong prescription, so too mistakes are possible in nature.[63] Natural beings sometimes beget young that are imperfect, unlike the parents. Fowl may produce a monstrosity with one head and body but four legs and four wings.[64] Pigs may be dwarfed. A horse may engender a mule.[65] Man may generate a woman.[66] All such imperfections, all such unnatural occurrences, all such teratalogical phenomena were regarded by the Philosopher as deviations from teleological determinism [67] which were due to a "necessity" that was either intrinsic or extrinsic to the nature in question.

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[61] *De Gen. et Anim.* II, 1, 731b, 33-732a, 1: κατὰ τοῦτον (i.e. εἴδος) ἔστιν ἀΐδιον τὸ γινόμενον . . . διὸ γένος ἀεὶ ἀνθρώπων καὶ ζῴων ἐστὶ καὶ φυτῶν.

[62] *Phy.* VIII, 4, 255b, 13 ff, 19 ff.

[63] *Phy.* II, 8, 199a, 33-35.

[64] *De Gen. Anim.* IV, 4, 770a, 18 ff.

[65] *Met.* VI, 9, 1034b, 3-4.

When the necessity is extrinsic it is called violence [68] which Aristotle defines as that "external principle that hinders or moves in opposition to the internal tendency" of a being [68] or "that which impedes and hinders contrary to impulse and purpose." [69] This coercive movement may come either from the intervention of a being freely acting or even a non-free nature which contravenes the natural tendency or impetus of another being, for the rock that can be projected into the air by man can also be blown up in a hurricane or volcanic eruption. The evidence of violence is so obvious it needs no further comment.

When the necessity is intrinsic on the other hand, it is due to matter. This matter, we hasten to add is not to be regarded here as prime matter, that pure indetermined, purely potential foundation of all corporeal beings, but rather it is secondary matter [70] i.e. matter already determined by a form and consequently already a determinate substance with definite qualities which come from the form and which is now regarded as the material cause of a further change.[71] Now the anti-teleological necessity that is at times found in this matter is only one, and indeed the most infrequent, of the necessities that attach to matter in the world of phenomena. There are two other major types of necessity for matter. (1) First and foremost, there is that necessity which accords with teleological determinism. (2) Then, there is that which is outside all purposiveness or finality. (3) The anti-teleological necessity of matter brings up a relatively rare and accidental third.

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[66] *De Gen. Anim.* II, 3, 373a, 27-28. Aristotle regarded the generation of females as a kind of imperfection, a miscarriage. "For the female is as it were a mutilated male" (*loc. cit.*). Nevertheless the female from the viewpoint of the perpetuity of the species is a "natural necessity" (ἀναγκαία τῆ φύσει). Cf. IV, 3, 767b, 5-13, praesertim 9.

[67] *Phy.* II, 8, 199b, 4: ἁμαρτήματα ἐκείνου τοῦ ἕνεκά του.

[68] *Eth. Eud.* II, 8, 1224b, 11-12.

[69] *Met.* IV, 5, 1015a, 26-28.

[70] Cf. Bonitz, *Comment. in Ar. Met.*, p. 328.

[71] Clemens Baeumker, in *Das Problem der Materie in der Griechischen Philosophie,* Münster, 1890, p. 270, rightly emphasizes the fact that it is not prime matter that Aristotle had in mind when he speaks of matter's necessity. It seems, however, that Baeumker errs by implication in affirming that Aristotle placed this necessity in an *active* power of matter, and in an active power of activating itself with necessity. "Aristoteles auch

(1) The first is that necessity which matter possesses of itself,[72] or would possess regardless of any further end but which *de facto* corresponds with the necessity that is hypothetically required by the end; e.g., iron (secondary matter) is necessarily

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der materielursache eine Kraft und zwar eine mit Notwendigkeit sich bethätigende Kraft beilegt" (*l. c.*). Baeumker believed that Aristotle was forced to give up the original stand he had taken to the effect that active potencies belong only to moving causes and passive potencies belong only to the material cause, and had in the end to ascribe "ein activer Anteil an dem Product", to the material cause (pp. 224, 268, 269). As a matter of fact, Aristotle did not have to abandon the first to allow for the second. Active potencies precisely as such belong only to a moving cause taken formally. Similarly passive potencies, precisely as such, are essential characteristic of the material cause, likewise taken formally. But since, with the exception of the stars and planets, there are no natural moving causes that are not bound up with affectible matter and no natural material cause that does not possess some kind of form, it is in the first place possible and even necessary that a moving cause suffer in its action by reason of the matter it possesses; in the second place, it is possible that a material cause may be somewhat active (e.g. in resisting dissolution) and this by reason of the form and its essential properties. If then Aristotle actually attributes to the material cause "eine *mit Notwendigkeit sich bethätigende Kraft*" and if he assigns to it *"ein activer Anteil an dem Product",* it is not precisely to the material cause *qua matter* that he does this, but rather to the material cause *qua* endowed with a form and possessing, therefore, certain determinations and propensities. There is no abandonment here of original positions. Matter as such is always the imperfect, the indeterminable, the purely passive, and Form as such is the perfect, the determining and the remote principle of action.

[72] Again we insist that the matter referred to here is *secondary* matter: consequently it is already an individual substance with definite attributes flowing from the *form;* cf. the following illustration.

hard (by reason of its own proper form). It is made into an ax or a saw, i.e., an instrument used for dividing or splitting wood in a definite way. Thus the instrument which is of such a firm, unyielding character by reason of the necessity of its matter, is also (and must be) of such a firmness by reason of the necessity of its end. For the end (splitting or sawing wood) would not be attained unless the matter was of such a consistency and hardness with teeth of such a nature (saw) or a smooth pointed edge (ax).[73] Here we see that the necessity proper to the matter accords with the necessity of the end. This example obviously is drawn from art. The same, however, is true in nature. Art simply imitates nature. Nature is a wise artificer [74] avails herself at all times of the necessity of the matter, and seeks to work upon that which by its inner constitution and necessity is already conducive to an end; e.g., Aristotle would say that the formation of fat or suet about the kidneys is both a consequence of the necessary conditions which accompany the possession of such organs as well as for the purpose of ensuring the safety of the kidneys and maintaining their natural heat.[75] The same nice balance of necessity imposed by purpose and material necessity is seen in the formation of teeth[76] in the development of the mammary glands [77] and, in general, wherever finality is realized in nature.

(2) The second type of material necessity we have called ateleological. It is that necessity of matter which is responsible (a) for non-essential accidental characteristics that are found in the individual substance (which in other respects is determined by the essential form or end) : (b) for certain purposeless after-effects which arise behind the purposed form.

(a) As to the former, the existence of individual differences, non essential to the species or genus, is obvious. Color of eyes, pigment of skin, hue of hair, size, shape, weight, height et al. are all individual differences which Aristotle would attribute to the necessity of matter. However it is an ateliological necessity because it is not postulated by the final or perfect form of the species. E.g., an eye definitely serves a purpose. Possession of such an organ is founded on the plan of organization of the animal's essence. It is due, therefore, to the specific or generic form and is common to all the individuals of the same species or genus by reason of the same form. But while the eye is for a final cause "it is not blue for a final cause".[78] It is a matter of indifference and is therefore non-essential and unnecessary to the species, as such, that the eye should have a particular tint. The color of the eye, however, while not necessary to the species, is necessary to the individual of the species, and this by reason of the necessity of the matter. For the different individuals within the same species there is a different matter and consequently a different necessity relative to these specifically purposeless and specifically accidental characteristics. It is important to add that while the matter is responsible for the individual characteristics that are accidental to the species, it is not *solely* responsible. The selection of this matter for this individuum and of that matter for that *individuum* works itself out in dependence on the *moving cause* which in every case effects the development of the form in this particular matter. So that Aristotle could say that it is both the efficient and the material cause which are the ground for these non-essential accidental characteristics.[79]

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[73] Cf. *Met.* VII, 4, 1044a, 27-29; *Phy.* II, 9, 200a, 10-13; *De Part. Anim.* I, 1, 642a, 9-10.

[74] *De Part. Anim.* IV, 10, 687a, 10-12.

[75] *Ibid.* III, 9, 672a, 1-16.

[76] *De Gen. Anim.* V, 8, 788, 3 ff.

[77] *Ibid.* IV, 8, 776b, 31-33.

(b) Among the purposeless after-effects that follow after the purposed form may be numbered excessive gall or bile, or any matter of a residual nature that is left in the body after the formation of organs such as the kidneys, liver, gall-bladder etc. Like an economic house-holder[80] who seeks to use everything to practical advantage, nature tries to use even these residues and off-scourings. When it succeeds, the necessity of matter dovetails with finality. Such, however, is not always the case. Many after-effects serve no apparent use whatsoever and must be excremented for the good of the nature. These are said to be results that ensue merely as necessary consequences of the properties of matter.[81]

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[78] *De Gen. Anim.* V, 778a, 32 ff.

[79] Cf. *De Gen. Anim.* V, 1, 778b, 1; 8, 789b, 20. See also Baeumker, *op. cit.*, p. 277.

[80] *De Gen. Anim.* II, 6, 744b, 16-17.

Somewhat allied with this phase of material necessity which is apart from, but not contrary to finality is that necessity of matter which is responsible for what Aristotle calls spontaneous generation. Spontaneous generation is for him that particular type of origin among plants and some of the lower animals, wherein the new living being does not arise from parent plants or animals of the same or kindred stock. These organisms are generated to all appearances spontaneously (ἀυτομάτως γίνεσθαι). Because such generations are so universally associated with matter and matter of a particular kind and in a particular state (slime, mud, sand, putrefying matter, etc.), two beliefs have been erroneously charged to the Philosopher, viz. 1) that such generations came solely from the necessity of matter as matter: 2) that consequently life comes from the lifeless. Neither of these is correct. As to the first, Aristotle indeed attributed to matter an important role in spontaneous generation; e.g., the differences in the testacean genus, all of which according to Aristotle grow by spontaneous generation in mud, are due to the differences in the matter. Thus oysters grow in slimy places, cockles, clams, scallops in sandy places, the penna from its tufts of anchoring fibres in sandy and slimy places.[82] Certain insects, moreover, are generated from concocted and putrefying matter etc.[83] It would seem that the matter has a necessary determining influence on such generations. Again we stress the fact that when Aristotle speaks of matter, he has in mind *secondary matter*. *Differences* in matter obviously bespeak *determined matter.*

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[81] *De Part. Anim.* IV, 2, 677a, 17-19.

[82] *Historia Anim.* V, 15, 547b, 14-22.

[83] *Ibid.* 19, 551a, 1-9.

If, therefore, matter determines in some way the spontaneous generation it does so by that very thing by which the matter is itself determined, that is to say, *the form*. Granting then that this formed or secondary matter has a determining influence, here again it is not the sole and perhaps not the most important influence. There is *also* and *always* a moving, efficient cause. In regard to the plants that are as it were self-generated, Aristotle expressly says that the spontaneous generation takes place through the "formation of some elemental principle similar to the seed".[84] Clearly he has in mind an efficient cause because such is the kind of causality proper to the seed (albeit instrumental). Moreover, speaking of spontaneous generation in general he affirms that it does not come from putrefaction but rather from concocted matter. Putrefaction and the thing putrefied are only a residue of what is concocted.[85] Concoction is nothing more or less than the phenomenon that takes place when air and *vital heat* are enclosed in anything.[86] Now in Aristotle's opinion *vital heat* is just what its name implies, an active living source of heat and life. It is present throughout the atmosphere.[87] It derives originally from the sun and moon which, we must remember, were living vital beings according to the Philosopher. The latter were the prime moving principles and the vital heat the secondary and instrumental moving principle of the being that rises by so-called spontaneous generation. This refutes the first objection and disposes at the same time of the second objection, viz. that Aristotle espoused the theory that life came from the lifeless. In his theory of the origin of life Aristotle could rather be said to approach panpsychism than an abiogenetic theory of living origins. A final word on spontaneous generation. Aristotle believed that beings which arose in this fashion were graded in the hierarchy of beings according to the manner in which they "embraced the psychic principle".[88] It seems he meant by this the effectiveness with which it imposed itself on matter, or vice versa, the limitations to which matter (as potency) restricted the form (or act) for he goes on to say that this embracing of the psychic principle "depends on the medium in which the generation takes place and the material which is included."[89] Clearly then the necessity of the matter has a great influence on the perfection with which the vital principle is realized—a principle that holds true not only in spontaneous generation, but in all generations and movements.

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[84] *Ibid.* V, 1, 5, 39a, 18: συστάσης τινος τοιαύτης ἀρχῆς.

[85] *De Gen. Anim.* III, 11, 762a, 14 ff.

[86] *Loc. cit.*, 1, 19.

[87] *Loc. cit.*, 1, 20: ἐν δὲ τούτῳ (i.e. πνεύματι) παντὶ θερμότητα ψυχικήν.

[88] *Loc. cit.*, 1, 25.

(3) We shall now speak briefly of the third type of necessity inherent it seems in matter. It is the only one which is decidedly anti-teleological. For this concept of matter Aristotle draws on Plato. Plato we recall had regarded matter as being responsible for all disorder, imperfection and frustration of purpose that we see in the world.[90] Aristotle to a certain extent agreed. Matter as passive potency is a limiting, hemming principle. Nevertheless, due to its passivity, its indeterminacy, its potentiality, the form regularly exercises a relatively unchecked sway as well as a dominative and determinative supremacy over the matter to the extent of the latter's proximate potentiality. The matter as a rule proves readily tractable to the act or form that will bring perfection to it, and the moving cause has little difficulty in imposing that act or form on its submissive correlative. At times, however, the matter—again we stress the fact that it is determinate matter—stubbornly resists the action of the efficient cause. It unyieldingly opposes the latter's assimilative power, with the result that to a greater or less degree the effect produced falls short of the perfection proper to the nature's end. Instances of these defections and abnormalities we have already cited.[91] They represent deviations from final determinism made possible by the peculiar intrinsic necessity of matter which in particular cases is embraced by its own form and with such intensity that it re-

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[89] *Loc. cit.*, 1, 26.

[90] *Vide supra,* pp. 25-26. Cf. Albert Lang, *Das Kausalproblem,* vol. I, p. 76; Baeumker, *op. cit.,* pp. 205-206.

[91] *Vide supra,* pp. 143-144.

linquishes it, as it were, only with a struggle and admits only the imperfect realization of a new form and at times an actual distortion of the same. Hence the necessity of matter and the corresponding impotency of the form and the moving cause are responsible for all variations from normal type ranging from diversity of sexes and dissimilarity in physical appearance down through the gamut of sports and freaks and teratalogical creatures. With this type of necessity, we conclude our survey of the various significations and applications which Aristotle has made of the term.

b Precision of the Relation of Final Determinism and Causal Necessity

Let us now return to the consideration that prompted our discussion of the meaning of necessity. It will be remembered that immediately prior to the discussion the question was asked: did Aristotle merely replace the rigorous radical antecedent dederminism of his predecessors by an equally rigorous, exceptionless determinism of the end? A.v. has absolute necessity of the final cause taken the place of absolute necessity of the material cause? In the light of what we have said apropos the term necessity we may now answer briefly in the negative and in doing so we may summarize the Philosopher's teaching on final determinism and its relation to causal necessity.

Final determinism imposes a *hypothetical necessity* on everything that is moved or generated by nature. That is to say, the conditions—and let it be noted once more that by the term conditions, Aristotle evidently would include *contact* and *dispositions* of the natural moving and natural material cause as well as *absence of impediment*—the conditions for every generation and every movement that stems from a natural cause must be such and such *if the end is to be attained.* To be more concrete. A natural end requires for its attainment: (1) a natural moving cause which of its nature and by reason of the determination of its end, and by virtue of its irrational active potencies tends unswervingly toward its end when in contact with (2) a natural material cause which again by reason of its nature, by the determination of its end and by virtue of its irrational passive potencies submits to the action of the moving cause in respect of that natural form to which it is proximately potential when and if there is (3) an absence of impediments. This is all that hypothetical necessity of a teleological character means. There is nothing contained therein which implies that these conditions will or must exist, though it is implied that if they do or if they must exist, the end will or must be attained, respectively. Speculations, however, on the existence of the conditions, strictly speaking, go beyond the question itself of final determinism. Aristotle did take this step beyond, as we have seen in his discussion of the necessity appertaining to essences and facts or occurrences, and the following briefly are his conclusions. In eternal phenomena (movements of the stars, etc.) and in cyclic phenomena dependent on these, the conditions required by the end do and must exist. In all other natural phenomena the necessary conditions do *regularly* exist but do not *necessarily exist.* Accidental causes (chance), violence and the necessity of matter may interfere with the natural efficient cause and obstruct its efforts (or tendency) to attain the end. It is to be noted, however, that no lack of conditions, no obstruction from matter or external force can ever destroy the *tendency itself* towards a determined end that is inherent in the natural efficient or moving cause. The necessity of *tending* towards a specific end is ever present in a natural efficient cause *by reason* of its specific nature (which because it is such must always have the proclivity towards the predetermined end) and *by virtue* of its irrational active potencies (which must be capable of tending to nothing else than the preestablished end). This tendency of the natural moving cause requires only the presence of the other conditions imposed by the end, for its inclination to be actualized by movement and action. This brings up the question of the character and validity of the principle of uniform causation.

IV. Character and Validity of Principle

1. *Recapitulation of Psychological Processes leading to Principle*

We have seen that sense experience and the perception of constantly recurring phenomena, of antecedent and consequent, formed the basis for the establishment of the *fact* of uniformity in Aristotle's mind. This fact gave rise to the intellectual perception of *order* in the world. Order in turn was satisfactorily explained only by *finality*. Distinguishing between the finality that revealed itself in the realm of Nous and in that of Nature, Aristotle prescinded from the former and concentrated on that particular species of finality that prevailed in Nature. This reflection and intellectual analysis revealed to him the reality of natural efficient causes—that is to say, non-free, physical causes, possessed of irrational active potencies and characterized by a determination and fixity of action and operation toward the same end in similar circumstances. The transition to the principle of uniformity was but a step. Such causes must necessarily have the same effect on the same thing in the same circumstances, i.e. if there is no impediment.[92]

2. *Universality and Necessity of the Principle*

Obviously Aristotle has transcended sense experience and entered the realm of intellectual insight in the formulation of this principle. Clearly the *de facto* constancy observed in the world of phenomena has deepened into a constancy that derives from essence. The unvarying "given" of the physical order has become an invariable truth of the metaphysical order. The "is" and "does" of the factual assertion of uniformity takes on the "must" of the imperative principle of uniformity when the latter is qualified by the stipulation that the circumstances remain the same. The fact of regularity, we have seen, to an intellect that reads within, implies final determinism and efficient causal necessity. Again to an intellect reading within and analyzing, efficient causal necessity bespeaks a natural efficient cause which necessarily operates in the same way under the same circumstances to produce the same effect. The necessity of the similarity in the mode of operation, given the fact or even the supposition of unchanged circumstances, attaches to a necessary property viz, a potency of operation, in a nature necessarily determined to an end. The effect or effects, again given the fact or the supposition of unchanged circumstances, must consequently be similar. The principle of uniformity, therefore, is absolutely necessary and simply makes explicit the metaphysical link that binds a cause acting necessarily, supposing similarity of circumstances, to the effect necessarily produced. It is simply an analysis of the essence which expresses in the predicate an essential property contained by implication in the subject. The judgment of uniform causation or causal necessity, as Aristotle conceived it, must, therefore, be ranked among the number of those propositions that are called prime. It is a proposition *per se* known, an *a priori* proposition whose truth is grasped intuitively by the mind as soon as the concepts involved are fully analyzed and juxtaposed in thought. As soon, therefore, as one has grasped the concept of a *"natural cause"* as *"one that must act repeatedly in the same way under the same circumstances by reason of its invariable tendency to a determimned end and by virtue of irrational active potencies"* and then compared this concept with that of *"similarity of effect"* the metaphysically necessary connection between the two is immediately seen. The principle, however, is not *per se* known to all since clear and definite notions of a physical non-free cause are reached only after painstaking intellectual concentration on observable phenomena. This explains why its necessity would not be seen by one who was not acquainted with the precise significance of the terms involved. It further explains the fact that the principle is arrived at only from and after intent observation of uniformity in nature.

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[92] Cf. *De Coelo* II, 13, 295a, 29; *Phy.* II, 8, 199b, 25; *De Gen. et Corr.* II, 10, 336a, 27-28.

Before leaving Aristotle's teaching on the principle of uniformity two warnings against its unwarranted interpretation and application seem called for:—

1) While the principle of uniform causation has its psychological genesis in the fact of uniformity in the world, nevertheless its truth and necessity do not depend on the maintenance, nor are they destroyed by a possible disruption of this regularity and uniformity. Theoretically, the principle would still hold good

even if a natural cause were never again to have all the conditions requisite for its action present. For this reason, it might even be better to call this proposition the *principle of conditional causal necessity* rather than the principle of uniform causation. The principle is primarily one of causal necessity. It is conditionally and secondarily one of uniformity. The necessity of acting in a determined mode is imposed by the end and essence of a natural cause and it is always there in potency. Determined operation in act depends on the presence of the indispensable conditions for action. *Repeated and regular determined operation* of the natural cause depends on the *repetition and continued recurrence of these conditions.* It is from this fact that the second warning arises.

2) The principle of uniformity, or as we have preferred to designate it, *the principle of conditioned causal necessity is not to be confounded with the maintenance of the existing order of uniformity and regularity.* It is only one element in that maintenance. The other indispensable element is, as we have seen, the continued and regular presence of the conditions needed to complement causal necessity. There is not the same necessity for the conditions to be present, as for the natural cause to act necessarily once the conditions are present. The latter is a metaphysical necessity, the former, a physical necessity, which, as Aristotle noted, admitted of exceptions in the realm of contingent natures. These exceptions do not destroy the *general presumption* that the requisite conditions will be present in the future as they have in the past [93] but they do make it impossible to state with certainty in any given instance that a natural cause will here and now act as it has always acted in the past. The occurrence of exceptions is provided for in the very formulation of the proposition which we prefer to call by the more precise title the principle of conditional causal necessity.

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With this we bring to a close the aristotelian phase of our study on efficient cause in itself and in its relation to other causes and philosophical concepts. We shall turn now to a parellel study of similar concepts in St. Thomas, one of Aristotle's most noted commentators, seeking to discover, thereby, wherein and to what extent the commentator has become an elucidator, an elaborator an emendator, wherein and to what extent the genius of the Christian Aristotle has advanced beyond that of his revered predecessor.

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[93] Aristotle has never given the rational basis for this presumption or expectancy, but it seems that one would have to place it in the τάξις and the διακόσμησις of the world which is attributable to God.

PART TWO

EFFICIENT CAUSALITY IN ST. THOMAS

CHAPTER VIII

HISTORICAL TRANSITION

Peripatetic philosophy by the first century before Christ had fallen into desuetude and thereafter, for almost a millenium, the thought and system of Aristotle became as a lost chord to Western civilization. The platonic tradition, sustained in the newer Academies, remained in Athens until the early part of the sixth century, vieing vigorously with the Pyrrhonism of the academies of Arcesilaus of Pitane, Carneades, Enesidemus and Agrippa. On the authority of Sextus Empiricus we know that the influence of Plato was felt and his philosophy respected by the sceptics more than any of the other so called Dogmatists. In fact Sextus censures Arcesilaus for his dogmatic proclivities saying that though he "seems to have shared the doctrines of Pyrrho" and "though his way of thought was almost identical with scepticism" yet he was in reality a dogmatist. He used to test his companions "by means of dubitation" and actually passed on to such of them as were naturally gifted the esoteric dogmas of Plato.[1] By the decree of Justinian (529 A. D.) however, Greek Philosophy was driven from Athens.[2] For a time, lacking imperial patronage it suffered popular eclipse. Gradually however it began to reassert itself. Neo-Platonism became the dominant philosophy and exerted a strong influence throughout the Middle Ages. More appealing in its style to the literary tastes of the classicists of the Byzantine court, more acceptable and seemingly compatible in its doctrines with Christianity, it had easily outscored its aristotelian rival. Oriented anew by St. Augustine it became the philosophic panoply of Christianity. As Duhem has remarked:—

> "The Fathers of the Church . . . and their contemporaries regarded Neo-Platonism as the only system which it was possible and useful to reconcile with dogma. Down

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[1] Cf. Sextus Empiricus, *Hypotyposes Pyrrhonenses* I, 234 (Loeb Classical Library Edition, London, 1933, vol. I.)

[2] Cf. Maurice de Wulf, *History of Mediaeval Philosophy* (tr. Messenger), London, Longmans, Green & Co., vol. I, p. 290.

> to the middle of the twelfth century the same thought was admitted without dispute in the schools of Latin Christianity. . . . At that time they could not dream of joining (*marier*) their christian belief to a philosophy which did not claim the name of Plato."[3]

Gradually however faint stirrings were seen in what appeared to be the still-born *corpus aristotelicum.* In the East, the works of Aristotle had been preserved by the Syrian Christians, although until the 9th century little prominence was given them. Photius, we are told, the coryphaeus of the Greek schism, was one of the few in his age (820-897) to express his predilection for Aristotle—an expression, by the way, which might well have accounted in part for the suspicion with which Aristotle was at first regarded by philosophers of an orthodox and platonic tradition. About this period and for three centuries thereafter arabian philosophy came to the fore and made its influence felt among the scholastics of the Middle Ages, resounding the refrain of a resurrected Aristotle. Alkendi, Alfarabi and Avicenna (Ibn-Sina), in the east in turn expounded certain of the doctrines of Aristotle, chiefly those contained in the Organon translated from the Syriac, but these, incomplete in themselves and truncated from the main body of *Aristotle's system*[4] gave to the world a distorted presentation of the latter's philosophy. When, in addition to this, it becomes known that such broken members of Aristotle's philosophy were grafted by these Arabian philosophers into a Neo-Platonist framework,[5] it can be seen how mutilated these necessarily became. Spain now became the focal point of philosophic thought as, by a gradual process of infiltration, the Arabian philosophy of the east, seeped through to the West by way of North Africa. There the great admirers and champions of Aristotle throughout the 11th and 12th centuries were Averrhoes of Cordova, Avempace and the estimable Jewish philosopher, Moses Maimonides.[6] Boundless though their respect was for the Stagirite, their philosophies were far from being servile plagiarisms of the peripatetic system. In the first place this would have been impossible, for their acquaintance with Aristotle was not first hand. The latter's thought underwent successive translations from Greek into Syriac, from Syriac into Arabic and from Arabic into Hebrew.[7] It is not surprising then that in the course of this it suffered considerable corruption. In the second place where they did not radically depart from his thought, his commentators frequently tempered it with the speculations of other philosophies, particularly those of Plato, or manifesting their own freedom of spirit excogitated opinions or doctrines of an independent mould or die. These observations are of a strictly historical nature and are not given for the purpose of deprecating the efforts of these noteworthy thinkers, far less, with the intention of affirming by implication that a servile following of Aristotle simply "quia videlicet Aristoteles dixit" is the *magnum desideratum* of Scholastic philosophy. Rather have they been noted in order that we may point out the critical attitude of him who is called the Christian Aristotle, as Augustine was characterized as the Christian Plato.

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[3] Pierre Duhem, *Le Système du Monde* (Paris; A. Hermann et Fils, 1914), vol. II, pp. 416-417.

[4] It is a known fact that neither the Metaphysics nor the Physics of Aristotle were known to the Middle Ages until some time after the middle of the 12th century. Cf. P. Mandonnet, *Siger de Brabant* (2nd. edn., vol. I, Étude critique—Louvain, 1911), pp. 13-14; De Wulf, *op. cit.,* vol. I, pp. 59-60.

[5] De Wulf, *op. cit.,* p. 293.

When St. Thomas came on the scene in the thirteenth century he recognized that much of what was parading under an aristotelian mask was far from the mind of the Stagirite. This was due in great measure, as we have indicated, to the faulty versions that made Aristotle truly inaccessible, likewise to the encrustations that had grown about the *corpus Aristotelicum* in the course of the centuries and had made it almost unrecognizable. He was intimately acquainted with and was an historically faithful exponent of the ideas of the Fathers of the Church, the Arabians and the Jews, especially, Avicenna, Averrhoes, Avencibrol and Maimonides. He rebelled, however, against the doctrines that he knew to be erroneously represented as aristotelian and he determined at all costs in the name of truth to lift these imputations of error from the founder of the Peripatetic School. Fortunately this same determination was shared by the Papal Court itself, contrary to common opinion. Back in 1209 a General Council presided over by the Bishop of Paris, Peter of Corbolio, condemned, among other works and personages, the natural philosophy of Aristotle. This condemnation was renewed by the Papal Legate, Robert of Courçon in 1215, again by Pope Gregory IX in 1231 and finally by Pope Urban IV in 1263 (at the very time be it noted when St. Thomas was attached to the Papal household (1259-1268). The scholarly work of Jourdain[8] in 1843 has proven beyond question that these bans were directed against the misrepresented Aristotle, against the extracts and commentaries made by Avicenna, Algazel, et al. and were prompted by the "need of studying Aristotle in the purest sources".[9] It would be impossible otherwise to explain "the care taken to procure his works, the zeal which the religious orders showed in studying them, finally the meteoric rise which the philosophy of the Stagirite met with in the West." One can understand then how it is that in the very court itself of Urban IV, at a time when presumably Aristotle's works were under ban, the scholarly linguist, William of Moerbeke, at the importunate insistence of St. Thomas set to work on the revision of existing translations and the making of new ones from the original Greek of Aristotle.[10] Speaking of the critical method of St. Thomas Jourdain tells us that:

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[6] The other great Jewish-Arabian philosopher of the west was Solomon Ibn Gebirol, known for six centuries by the name of Avicebron or Avencibrol (*infra,* p. 267, n. 56). Whereas Maimonides was a champion of Aristotle, Avicebron upheld the Neo-Platonic tradition. Cf. Stockl, *Handbook of the History of Philosophy,* transl. by T. A. Finlay, S.J., Dublin, Fallon and Co., Ltd. ,1903, Pt. II, pp. 315-316.

[7] We might add that the knowledge of Aristotle reached the Scholastics of the eleventh and twelfth centuries only by translations from Arabic or Spanish. Cf. De Wulf., *op. cit.,* p. 61 and footnote 1.

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[8] Amable Jourdain, *Recherches sur l'Âge et l'Origine des Traductions Latines d'Aristote* (edition reedited and augmented by C. Jourdain), Paris, Joubert Libraire-Editeur.

[9] *Op. cit.*, p. 212 ff.

[10] Cf. *De Gestis et scriptis ac doctrina sancti Thomae Aquinatis*

> "He (St. Thomas) conceived it his duty before interpreting the maxims of Aristotle to assure himself of the veritable translations of his words; hence, the discussions that he has touching the positive sense of the reading of the text, the reconciliation he makes of the versions, or rather, of the variants which he gives in various passages, *variants (by the way) furnished by the comparison of the Greek text and the Latin versions.*"[11]

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dissertationes criticae et apologeticae, Fr. Jo. Fr. Bernardi de Rubeis, O.P., Dissertatio 23, c. 2 in editione Leonina omnium operum D. Thomae, vol. I, p. 260 ff. The accuracy of these translations was for a long time open to question. Roger Bacon, a contemporary of Thomas and William Moerbeke, was one of the most outspoken critics, but as P. Mandonnet notes (*op. cit.,* p. 40, footnote 1), the accusations ot Bacon against the translations of William of Moerbeke, as is true of many of his other accusations, were but part of a systematic process of belittlement (un dênigrement systématique). Although the translations are wanting in elegance, it is generally recognized today that they are literally and scrupulously exact. Thus, A. Vacant (in *La Controverse et le Contemporain,* 1888, p. 456) has said: "Nous croyons que tous les jugements de Roger Bacon sur les travaux de son temps ont besoin d'être contrôlés. Nos recherches personelles nous ont démontré qu'ils étaient entièrement injustes, au moins par leur exagération, en ce qui regarde les versions d'Aristote et des autre auteurs anciens. . . . Ces traductions sont sans élégance, mais elles rendent le texte littéralement et avec une exactitude scrupuleuse". A comparison between the English translation (Oxford Edition) of the Metaphysics, for example, which has been made from the Berlin critical edition of the original Greek and Moerbeke's version which is used by St. Thomas in his commentary on the Metaphysics reveals a striking similarity between the two.

[11] Amable Jourdain, *Recherches sur l'Âge et l'Origine des Traductions Latines d'Aristote,* p. 393. The author notes that St. Thomas seems to have been familiar with the Greek language itself. His commentary on Aristotle's *Hermeneutics, Post. Analytics,* and *Physics* offer certain criticisms of the Greek text itself, or of the Latin variants by comparison with the Greek. Quite frequently moreover, he gives the original meaning of Greek words that are simply transliterated into the Latin version without explanation. In regard to the Latin versions themselves, he was not content with using only one, let us say

The result was that he became possessed of an insight into the thought of the Stagirite that was unsurpassed by any of his predecessors. More than any of these, therefore, was he eminnetly qualified to pass judgment upon the rediscovered Aristotle. His intimacy with the latter evoked on his part the deepest admiration, indicated by the reverent manner in which he frequently alludes to him as "Philosophus", *the* Philosopher. It was not, however, any blind devotion to a name[12] but rather a passion for truth wherever found and clearly expressed that elicited his respect. Paraphrasing his own agreement with Plato, who in dissenting with Socrates said, "Socrates is indeed my friend, but the truth is even more my friend",[13] we may say that Aristotle was indeed honored by St. Thomas but truth itself was more venerated. With this passion for truth and an amazingly critical attitude, he anatomized the complete system of the Philosopher. When, therefore, he agrees with the Stagirite, it is not, as we have said, because Aristotle has spoken and there the matter rested, but because what the latter has said, was of such stuff as could withstand the withering scrutiny of the Angelic Doctor and could therefore, be taken up and incorporated into his synthesis. When he disagrees with Aristotle it is because

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that of William of Moerbeke's, but apparently availed himself of the use of as many as he could lay hold of. Thus his commentary on the Hermeneutics indicates the use of two versions and his commentary on the Metaphysics, offering a great number of variants, reveals that he was possessed of three versions "derivées toutes trois du grec" (*loc. cit.,* pp. 395-400.)

[12] St. Thomas very clearly recognized the use of and limits of the argument from authority. His forceful expression: "Locus ab auctoritate quae fundatur super revelatione humana est infirmissimus" (*S. T.* I, 8, 2m) is but one of many that characterize his attitude towards such an argument. Cf. *C. G.* I, 2; *In II Sent.* 14, 3, 1m; *Quodl.* IV, 18c. The Thomistic position on this point is succinctly summed up by Card. Zigliara in the words: "Non est auctoritas criterium doctrinae; sed doctrina est criterium auctoritatis" (*Summa Philosophica,* vol. I, Part II, *Logica,* Liber II, Cap. 3, art. 3, § 3, edn. 17, p. 275).

[13] *In I Nic. Ethic.* to 6: Amicus quidem Socrates, sed magis amica, veritas".

he saw that error, indigenous as it were to human intellectual endeavors by reason of the fallibility of man's mind and of the difficult and recondite character of truth that is at times impervious even to the most enlightened soul, had crept into the system of the great Master. As all men are plunged in ignorance and the best of them are simply those that are slowly and tortuously forcing their way out of the darkness of error into the light of truth, so it was with Aristotle. He simply had advanced farther than the generality of pagan philosophers, though there still remained a residue of aberrations that needed correction and purging. This St. Thomas proceeded to effect. Whatever were the errors in the system of the Stagirite, St. Thomas found in it a body of rational principles that enabled him to correct Aristotle from the words of the Philosopher himself as M. R. Jolivet has noted.[14] To this task he brought a benevolence and indulgence that has been a surprise to some and a scandal to others, but this was simply part of his serene impartiality and transcendent impersonalism, for it was truth at all costs that he sought and he spurned not the ready tools that were at hand from the products of his predecessors. In addition to correcting the errors of the Stagirite, St. Thomas continually clarifies and amplifies the frequently digested form of the former's writings. In the majority of cases where Aristotle is cryptic, St. Thomas is expansive, where obscure, St. Thomas is illuminating, where indecisive, St. Thomas is determining, where the object of prejudice, St. Thomas brings the warmth of sympathy that enabled him to know better the true Aristotle and present him to a circle wherein ignorance and incomprehension had bred suspicion and distrust of him. It was just such understanding, perspicacity and mental acumen that the Angelic Doctor brought to bear upon Aristotle's theory of causes, and building therefrom he reared his own system of causes which has become as it were the stay and frame-work of his philosophic edifice. It will be our purpose in the succeeding chapters to delineate the thomistic theory of cause in general and efficient cause in particular, pointing out its radical similarities to, as well as its departures from and advances over the aristotelian theory.

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[14] R. Jolivet, "Aristote et la notion de Création" in *Revue des Sciences Philosophiques et Théologiques,* vol. XIX (1930), p. 235. " . . . quelles que fussent ses erreurs, Saint Thomas trouvait chez lui un corps de principes rationnels, qui permettaient de corriger Aristote par Aristote lui-même."

CHAPTER IX

A. CAUSALITY IN GENERAL IN THOMISTIC PHILOSOPHY

St. Thomas accords with Aristotle in the latter's general causal theory, not only as to its broad outlines, but frequently in the detailed expression of the same. In the first place the two see eye to eye in the realization of the importance of causality. The cognition of *causes,* with the Divus Doctor, as with Aristotle is the end which science sets for itself and endeavors to reach.[1] This striving is but the expression of the natural desire by which all men are inflamed,[2] a desire begotten of ignorance, doubt and wonder,[3] a longing that sets up an inquisition which is not satisfied until man has pierced the envelope of phenomena in which things are clothed, and penetrates into the very causes of being. This longing or natural desire to know causes is like the stone that is dropped into a lake and plummets to its depths. The waters from the moment and place of impact are stirred into activity. The stone has initiated a series of ripples which in ever-expanding, concentric circles reach to the most distant shore. There its influence ceases not, but causes a disturbance in the surrounding air which reaches beyond the earth-bound atmosphere, beyond the outer distances of space, until there is not a star in the farthest-flung galactic system but has felt the influence of the stone that is dropped into the waters. So it is with that intense yearning and natural desire to know, that is placed in man. Disturbed and agitated in its darkness and ignorance by its longing for the light of truth, his mind reaches out to know. Beings that are near it, first engage its attention, but no sooner are these known in their causes than, with perfervid activity, ceaselessly restless, it reaches farther, penetrates deeper, soars higher and is not content until it knows from first to last the causes of all—even the highest and noblest of causes, God Himself. Then only does man feel that he begins to comprehend all.[4]

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[1] Cf. *In I Met.,* proem: "Cognitio causarum alicujus generis, est finis ad quem consideratio scientiae pertingit." Cf. In I Perih., 2: " . . . oportet scientem, si est perfecte cognoscens, quod cognoscat rei scitae causam."

[2] *In I Met.* I, n. 1: " . . . omnibus hominibus naturaliter desiderium inest ad sciendum"; n. 2: " . . . naturaliter unusquisque desiderat scientiam sicut materia formam"; n. 3: "Naturaliter desiderium hominis inclinatur ad intelligendum et per consequens ad sciendum."

[3] *In I Met.* 3, n. 55: " . . . dubitatio et admiratio ex ignorantia provenit. . . . Et . . . admiratio fuit causa inducens ad philosophiam"; n. 66: "Initiata est autem inquisitio . . . ab admiratione de omnibus."

We have said that it is necessary for man to pass beyond the phenomena or sensible appearances of things if he is to arrive at the knowledge of causes. This is an observation which merited more emphasis in the time of Aquinas than in that of Aristotle. Some there were of St. Thomas' more proximate predecessors who, much more definitely than we have noted[5] was the case of Heraclitus, anticipated humean scepticism and phenomenalism. Notable among these were Algazel, the East-Persian Arab who lived a century before St. Thomas. He was of the opinion that one could become convinced neither of the necessity nor of the objectivity of the causal relation for the simple reason that man could observe only temporal succession of individual phenomena, which in no way gives rise to the knowledge of a causal link.[6]

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[4] *In I Phy.* 1, n. 5: " . . . tunc quidlibet experitur se cognoscere aliquid cum scit omnes causas ejus a primis usque ad ultimas."

[5] Cf. *supra.*, p. 16.

[6] Cf. Gunther Schulemann, *Das Kausalprinzip in der Philosophie des Thomas von Aquino* (B. z. G. d. P. d. M. Münster, 1915), p. 2: "Al-Ghazeli . . . griff die Ansicht der orthodoxen Theologen, Gott sei schlechthin Schöpfer, nicht Verursacher der Welt, und sein Wille sei an kein Gesetz gebunden, auf und baute sie dahin aus dass nichts die Notwendigkeit und Objectivität kausaler Zusammenhange beweise, da man nur die einzelnen Erscheinungen aufeinanderfolgen sehe und sich an ihre Succession gewöhnt habe." It is true this error is not listed in the enumeration of Algazel's errors that is set forth in the "Tractatus de erroribus Philosophorum, incerti auctoris" (cf. Mandonnet, *Siger de Brabant,* II ème Partie, pp. 14-17). But this fact is by no means conclusive, especially when it is known that Averrhoes in his *Destructio destructionis philosophiae Algazelis.* (Venice edn., 1522), and Maimonides in his More Nebukhim (cf. *Le Guide des Égarés.* ed. Munk, vol. I, Paris, 1856, p. 313 sq.) challenge this position of Algazel. Schulemaun

Now while St. Thomas never came into contact with the personal thought of the true Algazel,[6a] there seems little doubt but that he was familiar with the anti-intellectualistic opinions of those who, at least in this respect, were influenced by the East-Persian Arab. For the Angelic Doctor, such a stand is not only evidence of a misunderstanding of causality but a veritable denial of the intellect itself. It is not true, as some would maintain, that man sees or observes only the sequence of individual phenomena, unless of course one is to limit the word "see" and "observe" to sensible cognition. In the broad sense, as extending to intellectual sight and insight man truly sees causes just as he grasps essences. If one is restricted only to sensible phenomena then, to be sure, one would fail to arrive at any other view of causality than that of the constant succession of antecedent and consequent, prevenant and postvenant, for this is all that is objected or presented to the senses. But mere sense cognitions have nothing to do with revealing the nature of causes or principles,[7] and apprise us, at most, of certain phenomena that may pertain regularly though not essentially to the formal element of causality. The apprehension of causes, the ratiocination from causes to effects and vice-versa are actions proper to the intellect alone[8] and this is, undoubtedly, what prompted St. Thomas in the very preamble to his commentary on Aristotle's *Metaphysics* to give utterance to this caution that the cognition of causes appears to be in the highest degree intellectual.[9]

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refers the reader to T. de Boer's *Die Widerspruche der Philosophie nach al-Gazali und ihr Ausgleich durch Ibn Rosd.* Strassburg, 1894, pp. 75 f, and Carra de Vaux's *Gazali,* Paris, 1902, passim.

[6a] See below, p. 251, n. 26.

[7] *In VI Met.* 1, n. 1146: Cognitiones . . . quae sunt sensitivae tantum non sunt per principia et causas.

[8] *Ibid.*: "Discurrere enim a causis in causata, vel e contrario, non est sensus, sed solum intellectus.

[9] *In Met. proemium*: "Causarum cognitio maxime intellectualis esse videtur."

B. THE THOMISTIC CONCEPT OF CAUSE.

What precisely did St. Thomas understand by cause in its generic meaning? We recall that Aristotle failed to declare himself explicitly on this point. The concepts of principle (or beginning—*ἀρχή*) and cause were practically indistinguishable to him. After enumerating the various senses in which the word "principle" is used, he adds parenthetically and very casually: "Causes are spoken of in an equal number of senses: for all causes are beginnings (i.e. principles)."[10] The fact that he did not add, "but not all beginnings are causes" indicates at least a slight confusion of thought. This intermingling of concepts is revealed, not only at the beginning of the treatise on metaphysics, but close to the end,[11] where discussing the essence of material bodies he runs the two together without distinction in the statement: "The causes and the principles then (of the material body) are three, two being the pair of contraries of which one is definition and form, and the other is privation, and the third being the matter." Here not only are the words *cause* and *principle* used, apparently with coterminous signification but privation is confusedly taken to be a cause which, we saw, was definitely excluded in his definition. St. Thomas with his usual clarity and insight, immediately sought to disentangle the jumbled notions and determine their meanings.

In the first place he defines the distinction between principle and cause. The word *principle,* he says, simply implies a certain order of one thing to another,[12] from which the latter proceeds in any manner whatsoever,[13] whether this procession be one of magnitude, place, time, motion, simple origin, knowledge or dependence. The term, *cause,* on the other hand, implies a certain influx into the being of the thing caused,[14] and connotes that on which, in turn, things depend either for their being or becoming.[15] Such influence and dependence is definitely abstracted from in the concept of principle as such.[16] We say "abstracted from", rather than "prescinded from" since principle is the broad genus under which causes themselves are subsumed and consequently there are principles (viz. causes) [17] which demand these very notes of influence and dependence.

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[10] *Met.* IV, 1, 1013a, 17.

[11] *Met.* XI, 2, 1069b, 33 ff.

[12] *In V Met.* 1, n. 751: "Principium ordinem quendam importat: *In. I Phy.*: "Principium importat quendam ordinem processus".

[13] *S. T.* I, 33, 1, c: Omne enim a quo aliquid procedit quocumque modo dicimus esse principium.

A further distinction between cause and principle, more sharply demarcating the two has been forced upon Thomistic philosophy by the consideration of a peculiar kind of principle of which Aristotle was totally ignorant and which is known only by the light of revelation. In the procession of the divine Persons in the Trinity we are confronted with principles which are such, not in magnitude, place, tme or motion but in simple origin and with a corresponding *seeming dependence.* The Father is the principle of the Son; Father and Son are the principle of the Holy Spirit. In the procession of the Son from the Father and ot the Holy Spirit from Father and Son, both Son and Holy Spirit have their origin, the one by generation, the other by spiration. Further the processions in the Trinity are unlike any that are met with in the principles that have been con-

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[14] *In V Met.* 1, n. 751: " . . . hoc vero nomen causa importat influxum quemdam ad esse causati".

[15] *In I Phy.* 1: "Causae dicuntur ex quibus res dependet secundum esse vel fieri." Cf. *S. T.*, I, 104, 1c; *De Pot.* 5, 1c; *In I Sent.* 12, 1, 2, 1m.

nitely abstracted from in the concept of *principle* as such.[16]

[16] *In I Sent.* 29, 1, 1c: "(Principium) non habet aliquam influentiam ad esse principiati, sicut terminus a quo dicitur principium motus, et sicut mane dicitur principium diei"; *S. T.* I, 33, 1m: "Hoc nomen, causa videtur importare . . . dependentiam alicujus ab altero quam non importat nomen principii".

[17] In accord with Aristotle, St. Thomas says that all causes are principles. Thus in his commentary, *In V Met.* 1, n. 760 he says: "Nam omnes causae sunt quaedam principia". He clarifies Aristotle however, by adding that there are principles which are not causes. Thus *In V Met.* 1, n. 750: " . . .aliquid enim est principium quod non est causa." Cf. *In I Sent.* 29, 1, 1, 2m. Consequently, principle is a more common concept than cause, and indeed, the genus of the latter.

sidered heretofore. The Father is the principle of the Son, and both Father and Son are the principle of the Holy Spirit, not merely as the point is the principle of the line or day, of night, but by actual influx and production as the words *generation* and *production* connote.[18]

Have we to do then with more than a principle? Is there a question here of real efficient causality? So akin to the latter is this peculiar type of divine procession in God, that many of the Fathers of the Church, both in the East and in the West, although they maintained a rigorous orthodoxy and were fully conscious that the second and third persons of the Trinity were not creatures of the Father, affirmed nevertheless that they were caused by Him.[19] St. Thomas, recognizing the need for precise terminology, sought to eliminate the confusion and the improper use of the terms by applying the word *cause* to that particular kind of principiant in substantial processes wherein the substance-term is numerically distinct from the causal principiant,[20] reserving the word *principle* to the divine processions in which neither principiate, Son or Holy Spirit, is numerically different in substance or essence from the principle.[21] In other words, a principle can be numerically consubstantial with that of which it is the principle, whereas in the order of substantial generation by causality, the cause must be at least numerically distinct, though it can be specifically the same.

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[18] Cf. John of St. Thomas, *Cursus Philosophicus Thomisticus,* t. II. *Philosophia Naturalis.* Pars, I, q. X, p. 175.

[19] Thus, St. John Chrysostom, *Hom. II, super Joann.,* col. 244, t. xiii (v. *In I Sent.* 29, 1, 1, 2m); Marius Victorinus, *Adv. Arian.* lib. viii; Hilary, *De Trin.* lib. xi and xii; St. Augustine, *Quaestiones.* lib. lxxxiii. q. 46; St. Anselm and Richard of St. Victor, *De Trin.* lib. v. c. 7 (v. *S. T.,* I, 33, 1, 1m, note 7, Marietti edn.).

[20] *S. T.* I, 33, 1 1m: "Nomen causa, videtur importare diversitatem substantiae." N. B. Caution must be used in the interpretation of this text. Apart from its context it might appear that all effects, according to the thomistic doctrine, must be substantially different from their causes—an interpretation, which would be in open conflict with experience as well as with Aquinas' own doctrine (to give only one example) of elicited human acts, which are neither substantially different from their cause (since they are accidents in themselves) nor do they take place in a different substance but both proximate cause (the human will) and effect (the immanent act) are in the one substance. We need only recall the context in which this proposition is uttered. In the first place, St. Thomas can only be speaking of *efficient* cause for as we have noted, it is only to this that the Principle "in divinis" is assimilated by reason of its influx and action. Consequently no objec-

We have seen now St. Thomas' distinction between cause and principle. In addition he emends Aristotle's apparent inconsistency in designating privation as a "cause and principle" of being.[22] A privation or a deficiency, which denotes a lack of a form can, in no proper sense of the word, be termed a cause, for the very fundamental reason that nothing can be a cause except to the extent that it has being.[23] In other words, what does not exist, or what is a non-entity is the cause ot

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tion can be raised on the ground that neither the material nor the formal cause are different in substance from the substantial effect of which they are intrinsic constituents. And in the second place, the Angelic Doctor is speaking—to use the term employed in the text above—of *substantial processes,* i.e. processions or productions in which a substance is the *terminus ad quem.* Two other propositions, used in strikingly similar contexts bring out the meaning a little more clearly and allow the interpretation to be extended even to the accidental processes of immanent acts. In both these texts St. Thomas has substituted the word "essence" for "substance". Thus: *De Pot.,* 10, 1, 8m: " . . . nomen causae significat aliquid in *essentia diversum*"; and *In I Sent.* 12 1, 3, 1m: "Causa . . . semper ponit *diversitatem essentiae.*"

[21] In spite of St. Thomas' distinction the confusion persisted, cause and principle continued to be used, at times interchangeably, and even as late as 1442, the Fathers of the Council of Florence did not hesitate to call God, the Father, the *cause* of the Son. Cf. *S. T.* I, 33, 1, 1m, note 7: "Patres Concilii Florentini, Patrem esse causam filii asserere non dubitarunt". Since that time, however, the word in this particular reference has become obsolete.

[22] Cf. *Met.* XI, 2, 1069b, 33 ff.

[23] *S. T.* I, 49, 1c: Nihil potest esse causa, nisi inquantum est ens; *C. G.* III, 14: Res non est causa per hoc quod est deficiens sed per hoc quod est ens.

nothing.[24] But, both, privations and deficiencies, as such, are non-beings, and thus fail in the minimum requisite for a cause. If then they are called cause, or element,[25] it is only in a derivative diminished, or accidental sense. Thus St. Thomas says: "Privations are called elements, not *per se* but *per accidens* because they are an accident of matter which is (in the proper sense) an element. For the matter already existing under one form is in itself deprived of another form." [26]

These distinctions being made it can be said summarily that a cause, in the generic sense, according to the mind of St. Thomas, is that particular species of principle, which, by positive influx, contributes being to, or contributes to the being or becoming of, something distinct from itself and on which that other is dependent in the measure of that contribution.[27] Being of the genus principle, the cause must have a priority over thai which proceeds from it, for where there is a principle there is a principiate and, consequently, an order of prior and posterior. Otherwise one could not be said to 'prime' or principle the other. Being that species of principle, called cause, the priority that it has over that which is caused, is a priority of nature, that is to say a priority of independence, such, namely, that, though the cause and effect may exist with real temporal simultaneity, nevertheless, the latter depends on the former for its being or becoming; the former *econtra* in no way depends on the latter, the relation being irreversible. This priority of nature is the only kind of priority that is found in every species of cause[28] and, as a matter of fact, is all that is required by the formal concept of cause. Nowhere does cause of its essence require temporal anteriority.[29] In truth such priority is obviously excluded in the case of intrinsic causes (both material and formal), which are synchronous with their effect, and likewise in those cases of efficiency where there is action without motion, i.e. where action is simultaneous or sudden (*subitanea*). A clearer understanding of these notions will undoubtedly be the fruit of an investigation into the species of causes as they are found in St. Thomas' philosophy, and their interrelation.

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[24] *C. G.* III, 10, Adhuc: "Quod non est, nullius est causa. Omnem igitur causam oportet esse ens aliquod."

[25] "Element" is the aristotelian and thomistic term more properly used to describe the intrinsic constituent or cause of a substance. Cf. *In V Met.* 1, n. 750: "Sola enim causa intrinseca potest dici elementum"; *In I Phy.* 1: "Causa est in plus quam elementum: elementum enim est ex quo componitur res primo et est in eo."

[26] *In XII Met.* 4, n. 2470: "Dicuntur enim privationes esse elementum non per se, sed per accidens, quia, sc., materia, cui accidit, est elementum. Materia enim sub una forma existens, habet in se privationem alterius formae". The subject of privations will come up again, when we consider efficient cause specifically, for we shall see that privation in the subject acted upon is a necessary condition of efficient causality.

[27] It would be an error to limit this definition solely to efficient cause by reason of the tendency to represent in imagination the words "influx" and "contribution" by action. There are as many different kinds of influx as there are species of cause. Thus, as we shall see, even matter, though passive in itself, contributes to the being of the effect by being the support and the term of communicability in the form. The nature of the influx of the remaining species shall be considered in turn below.

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[28] *De Veritate,* 28, 7c. Respondes: " . . . in quolibet genere causae causa naturaliter est prior causato.

[29] *De Pot.* 3, 13, 5m: "Nec oportet omnem causam effectum duratione praecedere, sed natura tantum, sicut patet in sole et splendore"; *De Aeternitate Mundi*: "Non necessarium est quod (causa) duratione praecedat effectum suum"; cf. *In III Sent.* 18, 1, 3, 3m: "Non semper necessarium est ut causa causatum tempore praecedat, sed quandoque sufficit quod praecedat natura. Vide *De Principiis naturae; S. T.* I, 46, 2, 1m. St. Thomas definitely differs with Aristotle on this point. The latter, as was pointed out, held that causes are not only necessarily prior in nature, but also in time, to their effects. This was logically in accord with his principles, for he knew of no action that was not by motion and, therefore, with temporal succession. St. Thomas on the other hand recognized that at least in creation there is no motion and he frequently cites the example of the light of the sun and its splendor, light and illumination as instances in the experimental order of this *subitanea actio.* The fitness of these examples, which has been questioned, will be considered when the matter of efficient causality is specifically dealt with.

C. THE FOUR CAUSES

Of the generic concept *cause,* Aquinas recognized the four species—material, formal, efficient and final,[30]—which had been elaborated so systematically by Aristotle. The whole-hearted acceptance by Aquinas of Aristotle's generic etiological concepts is revealed in their all pervading character throughout the thomistic system. With deftness and adaptiveness he applied them to extents of which the Stagirite never dreamed. The material universe about us and its Author, man and society, art and morality, all are made comprehensive only to an intellect, *dividens et componens,* analyzing and synthesizing in terms of causality. Theology itself has been given rational support and appeal by its presentation under the form of the four causes.[31] So much a part of the edifice that St. Thomas has reared in the name of philosophy is this doctrine of the causes that unless they are understood in their manifold interrelations and ramifications one would be, like a bat in a cathedral, incapable of seeing its limned magnificence and beauty. It is important then that St. Thomas' view of the four causes be presented that it may be seen wherein, if at all, he differed with Aristotle either in understanding, emphasis, application or contributon.

1. *Material Cause:*

In agreement with Aristotle, St. Thomas defines the material cause as that out of which something is made or becomes, and which persists actually within the effect.[32] The last phrase forms an important part in the definition. For in the first place it designates it as an intrinsic cause, opposed to the final cause in intention,[33] the formal extrinsic cause[34] or exemplar and the efficient cause. In the second place it differentiates it both from contrariety or privation. An example will illustrate. We may say that the statue was carved from a shapeless mass of bronze or the chalice from the amorphous silver. In both cases we may discern between the lack of shape on one hand and the bronze or silver on the other. In each case the thing produced is from both, but it comes from the previous formlessness as from a contrary or privation, and it comes from the bronze or silver as from the material cause which perdures in it.[35]

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[30] *C. G.* III, 10, Praeterea: "Omnis causa vel est materia, vel forma, vel agens, vel finis". Cf. *S. T.* I, 3, 8c: 105, 5c: *In II Phy.* 10h: *In V Met.* 2 & 3: *De Pot.* 5, 1c: *In I Sent.* 29, 1, 1c: *In De Somno,* 4a; *In I Coelo,* 9a: *In I Gen. et Corr.* 1c & 2a.

[31] One need only consider the applications that have been made of the causal concepts to the theology of the sacraments, to the dogmas of the Incarnation and Redemption, to the doctrine of grace and the mystical Body, etc. Our consideration of the four causes, being strictly philosophical, will avoid references to purely theological matters save where it might be judged necessary for the purpose of illuminating or illustrating some concept.

In these cases, as, in fact, in all cases that have to do with corporeal substances, one may distinguish two material causes, one prime and the other secondary. The former is the prime matter which is the recipient of the substantial form, and enters into essential composition with it to form a complete substance, bronze or silver, as the case may be. The secondary material cause, is really the substance itself, bronze or silver, which is recipient of an accidental form (that of a statue or of a sacred vessel). In general we may say that prime matter is the material cause of all substances, and substances are the material cause of all accidents. We now turn to that cause which is intimately associated both intrinsically and extrinsically with the determination of matter, viz. the formal cause.

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[32] *In V Met.* 2, n. 763: " . . . uno modo dicitur causa id ex quo fit aliquid, et est 'inexistens', idest intus existens."

[33] We say "final cause in intention"—(St. Thomas says of the final cause "quia (that) est primum in intentione" cf. *In I Met.* 4, n. 70)—to distinguish it from that final cause in the execution which is the end actualized in the thing that is made. In generation, as St. Thomas says, this end is really the form itself which is an intrinsic part of the thing, (finis generationis est forma ipsa, quae est pars rei", *ibid.*) and, therefore, not on this basis to be distinguished from the matter."

[34] Called so, to distinguish it from formal intrinsic cause.

[35] Cf. *In II Phy.* 5: " . . . statua quidem fit ex aere, quod inest statuae iam factae: fit etiam ex infigurato, quod quidem non inest statuae iam factae. Unde aes est causa statuae, non autem infiguratum. . . . " See also *In V Met.* 2, n. 763: "statua . . . fit ex aere et philala ex argento, sicut ex inexistente. Nam cum statua fit, non tollitur ratio aeris, nec si fit phiala, tollitur ratio argenti. Et ideo aes statuae et argentum phialae sunt causa per modum materiae."

2. *Formal Cause in General*:

The formal cause is one of three forms which, according to St. Thomas, are to be conceived as real grounds of events.[36] They are: a) The form by which (*forma a qua*) a thing is formed and which virtually going out from the agent effects the formation. This is the efficient cause. b) The form according to which (*forma secundem quam*) a thing is made, i.e. the indwelling form which gives determination to the being of a thing and which constitutes it in a definite grade of being. Here we have the formal intrinsic cause. c) Finally there is the form after which (*forma ad quam*) a thing is made; this form is extrinsic to and separate from that of which it is the form and is called the exemplary cause, i.e. the form according to the similitude of which a thing is constituted or the form which something imitates. This is, in short, the Idea.[37] We shall return to a consideration of the first kind of form shortly. For the present, let us consider the *"forma secundum suam"* and the *"forma ad quam"* more extensively. Common to both are the ideas of determination and specification. Each in a different way, the former intrinsically, and the exemplar, extrinsically, determine or specify the effect in a certain grade of being, whether this be substantial or accidental. And it is by reason of these common denominators that they merit the name of formal cause, which, in the broad sense may be defined as whatever measures and determines the species and reality of another in any way whatsoever.[38] This obviously is the mind of St. Thomas, for he affirms that the formal cause is compared to a thing in a twofold way: in the first place, as the intrinsic form of the thing, and this is said to be the 'species'; in the second place, as that pattern, extrinsic to the effect, after the similitude of which, the latter is said to be made, and here the form is called the exemplar.[39] The latter, i.e. the exemplary cause, is certainly not considered by the Angelic Doctor as constituting a fifth species of cause distinct from the other four, but as belonging to the formal cause, distinguished from the form strictly regarded by a factor that does not essentially diversify the species.[40]

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[36] Albert Lang, *Das Kausalproblem,* Teil I, p. 199: " . . . erhalten wir drei Formen die sämtlich, nach der Ansicht des hl. Thomas als Realgründe des Geschehens aufzufassen sind. . . . "

[37] *QQ. DD. De Verit.,* 3, 1c: "Forma autem alicujus rei potest dici tripliciter. Uno modo a qua formatur res, sicut a forma agentis procedit effectus formatio. . . . Alio modo dicitur forma alicujus secundum quam aliquid formatur; sicut anima est forma hominis et figura statuae est forma cupri. . . . Tertio modo dicitur forma alicuius illud ad quod aliquid formatur; et haec est forma exemplaris, ad cujus similitudinem aliquid constituitur; et in hac significatione consuetum est nomen *ideae* accipi, ut idem sit idea quod forma quam aliquid imitatur. . . . ". Defining the idea more explicitly, St. Thomas says: " . . . dicetur hoc nomen idea significare formam separatam ab eo cujus est forma."

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[38] Cf. Matthieu Liberatore, *Institutiones Philosophicae* (Rome-Civilta Cattolica, 1864), vol. I, p. 357: " . . . latiore sensu quidquid speciem realitatemque alterius aliquo modo metitur et determinat, causa eiusdem formalis dicitur."

[39] *In V Met.* 2, n. 764: " . . . dicitur causa, species et exemplum, id est exemplar; et haec est causa formalis quae comparatur dupliciter ad rem. Uno modo sicut forma intrinseca rei; et haec dicitur species. Alio modo sicut extrinseca a re, ad cujus tamen similitudinem res fieri dicitur; et secundum hoc, exemplar rei dicitur forma."

[40] This is evident from the fact that it was Aquinas' conviction, as it was Aristotle's, that there were four species of cause and no more. These alone were specifically distinct according to an essentially different "ratio causandi". Any others that might be considered are distinguished only as to different modes or relations of the cause to the effect. Consequently they are different "quasi per differentias accidentales, non diversificantes speciem." (*In V Met.* 3, n. 783). Here we have definite indication that in the opinion of St. Thomas, the *first immediate division* of the genus, cause, is the fourfold division into material, formal, final and efficient, and not, as some would maintain, the twofold division into intrinsic and extrinsic, and only through this, mediately, into material and formal on the one hand, and efficient and final on the other.

a. Formal Extrinsic Cause:

The exemplar, then, is a formal cause inasmuch as it definitely though, to be sure, extrinsically, determines the likeness of the effect that is to be produced, supplying the artificer with the form to be given to the effect and to be delineated therein. In a very real sense moreover it is assimilated to both the final cause and to the efficient cause. It is likened to the final cause since it is the archetype, the imitation of which is intended by the artificer,[41] whether this be an attempted reproduction in artefacts of forms conjured in the mind of a human agent, or whether it be the creation or production of natural forms in natural things by God, Whose essence, the similitude of all things, is infinitely imitable and participable in creatures, through a communication of being by likeness.[43] It is, moreover, reducible, in a sense to the efficient cause and for this reason. The exemplar or model of anything is an idea, as St. Thomas has pointed out,[44] conceived in the mind of an artificer. In the human intellect, this idea is drawn from without, and is more properly called a species by which the intellect knows in act. *In divinis,* however, it is drawn from within, and is really a 'form' of the imitable divine essence. In both cases, however, it may be considered under a twofold aspect: as a principle of speculative cognition, and accordingly we designate it as the contemplative form of a thing; or as a principle of practical cognition, and then it is called an exemplary form of a thing.[45]

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[41] *QQ. DD. De Verit.* 3, 1c (v. f.): " . . . forma exemplaris vel idea habet quodammodo rationem finis et ab ea accipit artifex formam qua agit si sit extra ipsum." Cf. *Quodlib.* VIII, 2: "In ratione exemplaris includitur intentio agentis . . . ergo exemplar respicit quod agens primo intendit in opere."

[42] *QQ. DD. De Verit.* 8, 5c: " . . . ipsa divina essentia est similitudo rerum omnium."

[43] *Cf. S. T.* I, 15, 2c: "(Essentia Dei) est participabilis secundum aliquem modum similitudinis a creaturis."

[44] Cf. *supra.*, p. 178, n. 37.

[45] St. Thomas recognized this janused view of the idea. It is clearly expressed in his Commentary on the first book of the Sentences, (d. 36, 2, 1c): " . . . idea sumatur pro forma quae est principium practicae

Under the first aspect, it is merely passive or static; under the latter, it is considered active and dynamic. It is this concept, active and dynamic, the principle of practical cognition, that is assimilated to the efficient cause, for practical science is not a mere knowledge of an object *(nuda objecti notitia)*, but a knowledge which is joined to the will of the artificer, a cognition, therefore, which is the cause of things. The Angelic Doctor explicitly affirms that this is so, not only of the divine operations *ad extra,* but also in all human art,[46] and it is for this reason that he did not hesitate to say that the archetypal ideas of things existing in the mind of God, like the models in the mind of an artificer, are, as it were, *operative forms.*[47] The point, however, that needs emphasis is the fact that the ideas are active, productive, or operative only when conjoined to a will, itself proximately disposed to act. Together they constitute the adequate total cause of the effect to be produced. The efficient causality of exemplar ideas then, is partial and when considered *in actu primo* consists in the "dirigeant" virtue that it supplies to a will, otherwise blind. *In actu secundo,* its causality is the actual direction that the will-in-action has whereby the effect, imitative of the idea, is produced.

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cognitionis, secundum quod ideas exemplares rerum formas nominamus . . . (et) principium speculativae cognitionis est, secundum quod ideas contemplantes formas rerum nominamus."

[46] *S. T.* I, 14, 8c: " . . . scientia Dei est causa rerum. Sic enim scientia Dei se habet ad omnes res creatas, sicut scientia artificis se habet ad artificiata. Scientia autem artificis est causa artificiatorum; eo quod artifex operatur per suum intellectum. Unde oportet quod forma intellectus sit principium operationis; sicut calor est principium calefactionis." There is no doubt here but that the analogy is to the efficient cause. Confer in addition: *In I Sent.* 38, 1, 1; *C. G.* I, 62 and 67; *De Verit.* 2, 5 and 14.

[47] *In I Sent.* 36, 2, 1c: " . . . omnia sunt in mente Dei, sicut artificiata in mente artificis; et ideo formas rerum in Deo existentes ideas dicimus, quae sunt *sicut formae operativae.*" St. Thomas continues citing with evident approval the words of Dionysius in the latter's *De Divinis Nominibus:* "Exemplaria dicimus substantificas rationes existentium in Deo uniformiter praeexistentes quas theologia praedifinitiones vocat, et *divinas* et *bonas voluntates existentium praedeterminativas* et *productivas.*"

b. Formal Intrinsic Cause:

The formal intrinsic cause, as opposed to the exemplary cause, is, as we have seen, the *forma secundum quam,* which internally constitutes the effect in a determined grade of being, whether this be substantial or accidental. It is the act of a subjective passive potency, and consequently connotes the idea of perfection or entelechy. For the purification of our concept of formal intrinsic cause, it is necessary to distinguish between the two acts of form, called *primus* and *secundus,* only one of which is proper to the formal cause as such. The difference between the two is best brought out in the words ot the Angelic Doctor himself: "There is", he says, "a twofold act of the form. One, which is operation: as, for example, to heat. This is called *actus secundus,* and is an act of the form which is attributed to the suppositum. The other is the information of matter, which is *actus primus.* Thus, to vivify the body is the act of the soul. Such an act of form is not attributed to the supposit."[48] Now then the second act of the form more properly belongs to the consideration of the efficient cause and shall be treated therewith. The first act of the form is essentially and exclusively the act of the formal intrinsic cause. By its information of matter, the antecedent proximate potentiality of the latter to the new form is terminated in a new determinate grade of being. According to whether the matter which it informs is primary or secondary,[49] the formal cause will be either substantial or accidental respectively. The substantial formal cause differs from the accidental formal cause precisely in this: that the former makes a thing what it is specifically, and gives rise to a substantial composite or essence; the latter comes to a being already col-located as a substance in a determined species and, without affecting it as a substance, communicates to it an accidental formality or modality — a distinction clearly expressed by St. Thomas.[50] The formal intrinsic cause, then, is a correlative and complement of the material cause (whether prime or secondary), and is compared to it as act to potency. The causality of both is twofold, one with respect to each other, and the other with respect to the composite of which they are the intrinsic causes. Matter is said to be the cause of the form of a corporeal substance inasmuch as the form does not exist save in matter. Its causality then consists in receiving and sustaining the form. Similarly, the form is the cause of matter inasmuch as the latter has no actual existence save by the form.[51] The causality of both with respect to the composite is the immediate and mutual communication of being whereby the composite, the adequate and ultimate effect of both, is produced. In order however that there may be this inter-play of causality on the part of the matter and form, two conditions must be fulfilled. 1) In the first place, there must be present in the matter the necessary proper dispositions—previous dispositions whereby it is prepared for the reception of the form, and concomitant or proximate dispositions which render it capable of retaining the form. The reason for this is that in the rhythmic evolution of substantial forms, whose stages are determined, as we shall see, by cosmic finality or teleology, prime matter is incapable, as it were, of being divested of one form to be clothed with any other—it matters not what—but it must unite with that form which corresponds to the type immediately germane to it in the natural hierarchy of beings, whether this be in the ascendant order of *generation* or the descendant order of *corruption.*[52] By reason of a special predetermination, matter proceeds along a series of progressive steps. That is why, in the transformation from an inorganic body to an organic body, there is required a graded series of substantial changes, the last of which leads to a state of perfection close to the organic state. That is why the human body before its union with the spiritual soul was thought by St. Thomas to assume a more or less large number of intermediary provisional forms until it reached the stage where it had an exigency for that supreme information of the human soul.[53] This truth is borne out likewise in the realm of human art. A sculptor must be judicious in the selection of material for the execution of his work; an amateurishly contrived violin, in place of a Stradivarius would be ill-adapted as a vehicle to express the finesse even of a Jehudi Menuhin. 2) The second condition necessary for the actuation of the matter by the formal cause is that there be the actual influx of the efficient cause, applying the form to matter or educing it out of the potency of the latter. This naturally leads us to the consideration of that principle which plays so vitally important a role in the thomistic interpretation of the universe.

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[48] *QQ. DD. De Verit.* 27, 3, 25m: " . . . duplex est actus formae. Unus qui est operatio; ut calefacere, qui est actus secundus; et talis actus formae supposito attribuitur. Alius vero actus formae est materiae informatio, quae est actus primus; sicut vivificare corpus est actus animae; et talis actus supposito formae non attribuitur."

[49] For the meaning of these terms, confer analysis of material cause, above, pp. 177-178.

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[50] *QQ. DD. De Spirit. Creat.* a. 1, 9m: "Forma accidentalis a substantiali differt quia forma substantialis facit *hoc aliquid*; forma autem accidentalis advenit rei iam hoc aliquid existenti. Si igitur prima forma per quam colllocatur in genere, facit individuum esse hoc aliquid, omnes aliae formae advenient individuo existenti in actu; et ita erunt formae accidentales."

[51] *De Princip. Natur.* (Ed. Mandonnet, 1, 14): "Forma . . . dicitur causa materiae, inquantum materia non habet esse in actu nisi per formam; materia enim et forma dicuntur relative invicem."

3. *Efficient Cause* [54]

It has been seen that for Aristotle the concept of τὸ ποιητικὸν αἴτιον centers about and becomes distinctive by the idea of motion, that motion implies temporal succession, that motion and succession are mutually exclusive of any efficient causation that is without succession, that consequently the aristotelian definition by reason of its implication fails in essential accuracy, since it cannot be extended to comprise the creation of the world, nor other natural changes that occur without successive motion.[55] Now what has St. Thomas to say of this? Were one's researches into the thomistic concept of efficient cause restricted merely to his aristotelian commentaries one might be led to believe that Aquinas is in complete accord with Aristotle as to the nature of efficient causality. In several places in his commentary on the *Physics* and *Metaphysics*[56] he apparently accepts without hesitancy the aristotelian formula that the efficient or moving cause it that whence is the beginning of motion or of rest. However this may be, one is forced to conclude that it cannot reflect the mind of St. Thomas fully, that St. Thomas could not have regarded Aristotle's definition as universally accurate and applicable, satisfactory and true though it may be for natural and secondary causes. The reason is that St. Thomas' recognized convictions demand an alteration and extension of the Stagirite's position. There was the fact of creation. Faith had taught it; reason had indisputably proved it to Thomas' complete satisfaction.[57] Moreover an analysis of creation revealed that creation is not motion[58] and can be called motion only in an equivocal sense of the word.[59] Unless, then, we are to convict

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[52] Cf. Maurice De Wulf, "La Synthese Scholastique," *Rev. Neo-Schol.* vol. VI, p. 55 ff.

[53] So St. Thomas called the soul, "actus corporis physici organici potentia vitam habentis." *(S. T.* I, 76, 4, im.*)* and again "Actus corporis organici sicut proportionati et primi perfectibilis *(ibid.* 76, 8, 2m).

[54] Although efficient causality will be analysed more at length in the succeeding chapters, the present treatment is introduced at the risk of being repetitious in order to fill out the picture of the thomistic doctrine of the four causes with their specific differences and interrelations—all this in the hope of paving the way for a more thorough understanding of efficient cause proper.

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[55] *Supra*, p. 52.

[56] *In I Met.* 4, n. 70: 'Causa est efficiens quae est unde principium motus": *In V, Met.* 2, n. 765: "Tertio modo dicitur causa unde primum est principium permutationis et quietis": *In II Phy.* 2, "Ulterius autem (Aristoteles) dicit quod alio modo dicitur causa a quo est principium motus et quietis" etc., etc.

[57] *S. T.* I, 44-45; *C. G.* II, 15-16; *De Pot.* III, 1; *In II Sent.* 1, 2 & 3: " . . . creationem esse non tantum fides tenet sed etiam ratio demonstrat."

[58] See *De Pot.* III, 2c: *C. G.* II, 17 & 19, etc., etc.

[59] *In VIII Phy. 2*: Quia omnis motus indiget subjecto ut hic Aristotles probat et rei veritas habet, sequitur, quod productio universalis entis a Deo non sit motus nec mutatio, sed sit quaedam simplex emanatio et sic fieri et facere aequivoce dicuntur in universali rerum productione et in aliis productionibus."

St. Thomas of logical inconsistency we must make the illation that his concept of the essence of efficient cause transcends the idea of motion and succession and time, regardless of whether or not in any place in his works he makes explicit this broadened view. As a matter of fact, it appears that he has done so and in a passage where it would be most logical to suppose that he would—viz. where he treats *ex professo* of creation, that most obvious example of efficient causality *par excellence* which excludes motion, time and succession. In the first part of the *Summa Theologica* (q. 45, a. 6c), St. Thomas says that creation is properly to cause or produce the being (or existence) of things.[60] Now this expression can be interpreted in a twofold manner; in one way by reducing the concept of creation under that of efficient causation precisely because creation is an efficient causation and therefore a production of being, as is all causation of an efficient kind; in another manner by distinguishing creation from causation to the extent that the former realizes the concept of the latter in a manner peculiarly its own, viz. precisely in the measure that is a production of being (as the context indicates) *ex nihilo.* The two meanings are found harmonized in the text, for the phrase signifies both simultaneously. By the first interpretation efficient causality would be equated with *production of the being or existence of a thing* (and in this sense efficient cause abstracts from the idea of motion since production of being can be either with or without motion and succession, creation being an example of the latter),[61]

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[60] " . . . creare est proprie causare sive producere esse rerum."

[61] Creation is not the only example of efficient causality without succession. St. Thomas frequently alludes to the action of generation and illumination as instances in the natural order of this kind of causality. cf. *Quodl.* IX, 9, c; *C. G.* II, 9, Praeterea etc., etc. It has been thought by some that the example of illumination has been cited by Thomas because of his ignorance of the speed with which light travels. This, it appears, is an erroneous interpretation of the thomistic position. Although Aquinas calls illumination instantaneous change and not successive action, yet he realized that illumination was itself the term of a local motion (of light rays?) from a lucid body. The same can be said of generation—though it is an instantaneous change whereby the new

By the second interpretation creation is considered as a cause of a particular kind, because it is a particular mode of producing the being of a thing. Creation therefore agrees with causation inasmuch as they both are a production of the being of an entity which otherwise would not exist. They differ in this, that creation is a particular kind of production without motion, wherein the efficiency of the cause extends to the entire being of the effect, whereas in itself efficient causality may be and ordinarily is a production of only a partial entity of the effect whether this part be substantial (as the form in the generation of substances) or accidental (as a new modality that is introduced into a being already a substance).[62]

The essential character then of efficient causality is productivity. Herein lies the causality of efficient cause as St. Thomas expressly says,[63] the distinctive mode of influx that gives it its specific nature. But what, it may be asked, is 'productivity'? We may say, in response, the making of a thing by action. And if it be objected that efficiency, productivity, making, acting are synonyms, we cannot very well demur, for they are all terms that express—perhaps with slightly different nuances, but certainly with no essential difference—the idea of action. An efficient cause then is a productive cause or an acting cause; a cause which, by action, contributes being to or to the being or

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form is received into matter, nevertheless the generation itself is a term of previous alteration. This is clearly expressed by St. Thomas who seemingly anticipated modern objections in the words: "Et si objiciatur quod ante omne factum esse est fieri proprie acceptum, dico quod verum est in omnibus quae fiunt per motum localem" *(In II Sent.* 1, 1, 2, 3m) It is in this necessity of previous motion that instantaneous natural actions differ from creation. The latter in no wise presupposes anterior motion. For further understanding of St. Thomas much disputed example of illumination cf. Harper's *Metaphysics of the Schools,* vol. II, pp. 160 ff.

[62] Cg. *C. G.* II, 21, Adhuc: "Esse . . . simpliciter per creationem causatur, quae nihil praesupponit quia non potest aliquid praeexistere quod sit extra ens simpliciter; per alias factiones autem fit hoc ens vel tale."

[63] *In De Causis,* I, (v.f.): "Proculus utitur verbo productionis, quae exprimit causalitatem causae efficientis."

becoming of another. We need not be chagrined that we have attempted to define a concept by terms that are factually synonymous. It could scarcely be otherwise, for in the concept 'action' we are confronted with a prime concept, one of the supreme *genera* of being that does not admit strictly of a definition. This does not alter the fact that we have in the concept of productivity or action an idea that clearly differentiates the influx of efficient cause as such from that of the other causes, no one of which can lay claim to the reality expressed by the terms, in any proper sense of the words. The material cause, as we have seen, causes by its receiving the form; the formal cause, by immediate communication and actuation of matter;[64] the final cause, we shall presently see, in its being sought and desired, and consequently, in its attraction. Efficient cause alone, in the proper sense exercises its causality "per modum actionis", so that it can be said of it exclusively that action is its mode of influx,[65] and it is through action alone that the effect depends on its efficient cause.[66] A more extended study of action will be our major preoccupation in the following chapter, so that no further consideration of it need detain us on this point, beyond the observation that action necessarily bespeaks a principle of action, both proximate and remote. The proximate principle can only be an active or operative potency.[67] The remote and ultimate principle however is the substantial form of the agent, in its second act.[68] It is for this reason that St. Thomas speaks of the efficient cause as the form by which a thing is formed or from which the formation of the effect proceeds.[69]

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[64] St. Thomas notes that the formal cause is sometimes said to "make" (facere) a thing, but this is only an improper and abusive use of the word. Thus in *QQ. DD. De Malo* II, 11c: "Dicitur proprie quidem agere ipsum agens quod actum producit, abusive autem id quod agens agit: sicut proprie quidem pictor facit album parietem; sed quia facit album per albedinem, consuevit etiam dici albedo facit album" (cf. *In I Sent.* 17, 1, 1, 5m; *In II Sent.* 26, 1, 5, 3m). Here we have an example of an accidental formal cause, but the same is no less true of substantial formal causes. Actually, the rational soul does not *make* a being human in the sense of producing it, though it can, in an improper sense, be said to make it such, formally.

[65] *QQ. DD. De Verit.* 22, 2c: " . . . influere causae efficientis est agere"; In *V Met.* 2, (v.f.) "Efficiens est causa inquantum agit."

[66] *QQ. DD. De Pot.* 5, 1c: " . . . per actionem . . . alicujus principii dependet effectus a causa agente."

4. *Final Cause*

a. Concept.

As with Aristotle, so with St. Thomas, the final cause is that for the sake of which something is done, that on account of which the agent operates.[70] Since the efficient cause, however, does not operate unless there is good to be attained, it is manifest that the end properly bespeaks a good, whether apparent or real,[71] and therefore, an order of, and a relation to an appetite, i.e. an appetitive faculty or inclination. Because good is transcendental and inclinations and appetites are not confined to rational beings alone, St. Thomas, in agreement with Aristotle, insists that every agent acts for an end,[72] and without final causes, there would be no action whatsoever.[73] The reason for the latter is that unless an agent were determined to some effect, there would be no more reason why it should act in one way rather than in another. Consequently, in order that an agent produce a determined effect, it is necessary that it be determined to that effect which has the notion of end.[74] Although every agent, therefore acts on account of an end, this tendency varies, according as it proceeds from an efficient cause possessed of reason or not. In the former case, the agent moves itself toward the end, as with man who apprizes the end and desires it as such. In the latter, the cause is itself moved toward the

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[67] *C. G.* II, 9, Item: "Actio alicujus rei est quoddam complementum potentiae ejus; comparatur enim ad potentiam sicut actus secundus ad primum." This of course does not apply save analogically to God, for in God potency and action are really indistinguishable, both being His very Essence. Cf. *Ibid.* c. 8.

[68] *De Operationibus Occult. Naturae (Opuscula Omnia,* Edn. Mandonnet, vol. I) p. 3: "Virtus (i.e. potentia) quae est talium actionum . . . principium ostenditur ex forma rei specifica derivari: omne enim accidens quod est alicujus speciei proprium, derivatur ex principiis essentialibus illius speciei." Consequently the substantial form is the ultimate principle of action. But we say "substantial form . . . in its second act", to distinguish it from the first act of the same form, which is to actuate matter and constitute it in a determined grade of being. By its first act, it is a formal cause; by its second, an efficient cause. The distinction between the two acts of the form is commonplace throughout the works of St. Thomas. E.g. *QQ. DD. De Verit.* 27, 3, 25m: " . . . duplex est actus formae. Unus qui est operatio; ut calefacere, qui est actus secundus . . . Alius vero actus formae est materiae informatio, quae est actus primus; sicut vivificare corpus est actus animae . . . "

[69] *QQ. DD. De Verit.* 3, 1c: "Forma alicujus rei, potest dici tripliciter. Uno modo a qua formatur res, sicut a forma agentis procedit effectus formatio . . . "

[70] Cf. *In I Met.* 4, nn. 70-71: *In V Met.* 2, nn. 771-773: 3, n. 782: *In II Phy.* 5 & 10; etc.

[71] St. Thomas notes that in the case of those agents which act through

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choice it may happen that the end actually is evil. To remove this difficulty he says that it matters little for the verification of final cause whether it be truly good or only apparent. The important point is that the end does not move save under the aspect of good, a truth which Aristotle himself recognized. Thus, *In II Phy.* 5, Vivès, vol. XXII, p. 353 b; "Et quia (Aristoteles) dixerat quod haec species causae (i.e. finalis) habet rationem boni, et quandoque in his quae agunt per electionem contingit finem esse malum; ideo ad hanc dubitationem tollendam dicit, quod nihil differt utrum causa finalis sit vere bona, vel apparens bona; quia quod apparet bonum non movet, nisi sub ratione boni . . . "

[72] To the question "Utrum agere propter finem sit proprium rationalis naturae", Aquinas definitely responds that even those beings which entirely lack cognition *(ea quae omnino cognitione carent)* tend to an end in their actions, even though it is not apprehended by them (c.f. *S. T.* I-II, 1, 2c). It is an axiom frequently encountered therefore throughout St. Thomas' writings that every agent acts on account of an end. Cf. *QQ. DD. De Pot.* 5, 5c; *De Verit.* 22, 1c; *C. G.* III, 2; *In XII Met.* 12c: *In III Sent.* 27, 1, 2c; *S. T.* I-II, 11, 2c, etc.

[73] *QQ. DD. De Pot.* 5, 1c: "Unde et ubi non est actio, non est causa finalis."

[74] Cf. *S. T.* I-II, 1, 2c "Agens . . . non movet nisi ex intentione finis; si enim agens non esset determinatum ad aliquem effectum, non magis ageret hoc quam illud. Ad hoc ergo quod determinatum effectum producat, necesse est quod determinetur ad aliquid certum, quad habet rationem finis."

end by another, as the arrow seeks its mark from the fact that it is moved by the archer, who directs its action towards the target. Hence, those causes which enjoy reason move themselves to the end, because they have dominion over their actions by virtue of free choice, a faculty of will and intellect. Those, *econtra,* which lack reason, since they do not apprehend the end as such,[75] tend to it, in virtue of a natural inclination, moved, not by themselves, but by another. Consequently, they themselves are incapable of ordaining other things to an end. Therefore, it is proper to an intellectual nature alone to tend toward an end, as moving itself, freely ordaining itself thereto, freely choosing the end, freely selecting the means suitable to reaching it, and ordaining other beings in respect of it. On the other hand, the whole of the irrational realm, including brutes, plants and inanimate beings, act on account of ends preordained by their Maker, Who has endowed them, for that purpose, with natural appetites and inclinations.[76]

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[75] The words "as such" are added, because brute animals by their senses and estimative faculty, do apprehend the end, but they don't recognize it as such, nor do they know the proportion or relation of their action to the end. *(S. T.* I-II, 6, 2c: "Imperfecta cognitio finis est quae in sola finis apprehensione consistit, sine hoc quod cognoscatur *ratio finis* et *proportio* actus ad finem"). Consequently they cannot be said to move themselves to the end.

[76] The distinction between the determination towards an end by the rational appetite and that by the natural appetite is succinctly expressed by St. Thomas in a passage that merits quotation in full. "Considerandum est", the Angelic Doctor says, "quod aliquid sua actione vel motu tendit ad finem dupliciter: uno modo sicut seipsum ad finem movens, ut homo: alio modo sicut ab alio motum ad finem, sicut sagitta tendit ad determinatum finem ex hoc quod movetur a sagittante, qui suam actionem dirigit in finem. Illa ergo quae rationem habent, seipsa movent ad finem, quia habent arbitrium, quod est facultas voluntatis et rationis: illa vero quae ratione carent, tendunt in finem propter naturalem inclinationem, quasi ab alio mota, non autem a seipsis, cum non cognoscant rationem finis; et ideo nihil in finem ordinare possunt, sed solum in finem ab alio ordinantur . . . Et ideo proprium est naturae rationalis, ut tendat in finem, quasi se agens, vel ducens ad finem; natura vero irrationalis, quasi ab alio acta, vel ducta; sive in finem apprehensum, sicut bruta animalia; sive in finem non apprehensum, sicut ea quae omnino cognitione carent." *(S. T.* I-II, 1, 2c).

This tendency towards an end on the part of rational creatures by the rational appetite, and on the part of brute and inanimate beings by natural appetites, is called indifferently by St. Thomas, "intentio finis", a phrase which in modern usage has come to be greatly misconstrued. Because of its seemingly inseparable association with the notion of conscious direction, the word, when applied to the inanimate realm and brute animals alike, is regarded by present day philosophers as a quaint and naïve anthropomorphism, or at best a poetic metaphor which should have no place in a science of strict terminology. This simply reflects a misunderstanding of St. Thomas and his doctrine on analogy. The attribution of appetition or "intentio finis" in this connection to all created beings, irrespective of their being conscious or not, is simply in accord with the etymological definition of the word as expressed by the Angelic Doctor —"intentio, sicut nomen ipsum sonat, significat in aliud tendere."[77] It is true and readily conceded that the word, as it is used, is to be understood as having an analogical and not a univocal signification, that intention is principally and properly found only in beings endowed with reason. Nevertheless, since this tendency is undeniably evident in every nature, even irrational and inanimate, it can in a veritable sense be said that the latter have an "intentio finis", even though their proclivities and natural inclinations are imposed by intelligence which alone has a knowledge of the end as such.[78] In summary, the concept of final cause involves: a) a good, apparent or real; b) attainable[79] and to be attained; c) related to an appetite, rational, or natural; d) and drawing that appetite to itself, as to a *term* of action.[80] This last element brings one to a consideration of

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[77] *S. T. II-II,* 12, 1c : cf. *In II Sent.* 38, 1, 3c.

[78] For this analogical use of the phrase "intentio finis" consult the learned article by H. D. Simonin, "La Notion *d'Intentio* dans l'Oeuvre de S. Thomas d'Aquin" in *Revue des Sciences, Philosophiques et Théologiques,* vol. XIX, 1930, part III, Intentio Finis, pp. 451-456. In part, M. Simonin says: "Since intention, insofar as it is a determined voluntary act must retain something which belongs properly to reason, this special act will be found *principally* and *properly* in those beings alone which are endowed with reason. Indeed, all other beings will also tend towards their end, but they can do so only under the motion of a superior intelligence which alone has the knowledge of the end. These inferior beings are not so much independent movers, as beings that are moved, like the arrow directed toward its mark by the archer. The motion of

b. Causality of Final Cause

Briefly, the influx of the final cause consists in its being sought and desired[81] by an efficient cause. Prior to exercising actual influence on the latter, it may be regarded as a final cause in potency *(in actu primo)*, or it may be said that it is no cause at all, if one is to limit the application of the term *cause* to actual causes. Its actual causality however (i.e. *in actu secundo*) lay in its moving the appetitive faculty of the efficient cause. The use of the term *motion* has vexed not a little certain

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intention then will be shared analogically according to the different degrees of activity and appetition by beings endowed with intelligence and free will, by beings subject to the instincts of nature, by living beings, even though deprived of intelligence, and finally by inanimate beings. In each grade of this hierarchy, the notion will be realized, losing (however) something of its formal constitutive note (since) those beings alone, which are conscious of their end can truly tend toward it." (p. 453) For St. Thomas' application of the word to inanimate creation consider the following: " . . . hujus mali quod est corruptio aquae, causa est virtus ignis activa. Quae quidem non principaliter *intendit* et per se non esse aquae, sed principaliter intendit formam ignis inducere in materiam, cui conjungitur ex necessitate non esse aquae." *(QQ. DD. De Malo,* 1. 3c. See also *C. G.* III. 2, 3, 4, 5 etc.)

[79] The word 'attainable' is inserted for the obvious reason that unless the good in question were capable of acquisition it would never move as a final cause. Victory in war is a good, but unless there were a hope of victory, an army would never be mobilized for an offensive. Thus in Scripture we read: " . . . what king about to go to make war against another king, doth not first sit down, and think whether he be able, with ten thousand, to meet him that, with twenty thousand, cometh against him?" (Lu. XIV, 31).

[80] We say "as to a term of action" since there are many goods (e.g. bona utilia) which are not terms, but rather means "in ordine ad finem".

the precise causality of the final cause.

[81] *QQ. DD. De Verit.* 22, 2c: " . . . sicuit influere causae efficientis est agere, ita influere causae finalis est appeti, et desiderari."

philosophers, who would reserve the word for action of the efficient cause alone. However, as we have noted,[82] Aristotle definitely declared that the final cause is not really active and that it is said to *move* the efficient cause only metaphorically. With this view, Aquinas expressly agrees.[83] The distinction between the movement of the final cause and that of the efficient cause is well brought out by Tilmann Pesch. The former is metaphorical motion; the latter, physical action. "The appetite", Pesch says, "can be considered either as an act effectively proceeding from the appetitive faculty in actual operation, and then it has the notion of physical motion, or it can be regarded as a change occurring in the same faculty but proceeding from an attracting *(alliciente)* good, in which case it has the idea of metaphorical motion." [84] But though its motion is called metaphorical, it is not to be gathered that the causality of the final cause is by that fact less real;[85] in fact, it is so real that without it, there would be no causality exercised by the other causes, which leads to a consideration of its primacy over efficient formal and material causes.

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[82] *Supra.* p. 34. Cf. Aristotle, *De Gen. et Corr.* 1, 7, 324b, 14 ff.

[83] *In I Gen. et. Corr.* 20: The text of Moerbeke's translation reads: "Est autem factivum causa, ut unde principium motus; cujus autem gratia non activum: nam sanitas non factivum est, nisi, secundum metaphoram." And St. Thomas' brief commentary on these words follows: " . . . agens est unum primum principium motus, et est diversum a causa formali et finali, et non dicitur finalis, nisi secundum metaphoram."

[84] Tilmann Pesch, *Institutiones Philosophiae Naturalis* (Friburgi, Brisgoviae: Herder, 1880) Lib. I, d. VI, s. ii, n. 325: "Potest enim appetitus ille considerari vel ut actus effective procedens a facultate appetente: et ita quidem rationem motionis physicae habet . . . vel etiam respicitur, ut est facultatis appetentis immutatio a bonitate *alliciente* procedens: et ita rationem habet motionis metaphoricae."

[85] Cf. John of St. Thomas, *Cursus Philosophicus Thomisticus,* Paris, Vivès, 1883) vol. II, Philosophia Naturalis, I, 12, De Fine, a, 2: " . . .oportet quod sit vera causalitas et propria (causae finalis) licet sit metaphorice actio seu motio, sicut Christus dicitur Leo metaphorice propter fortitudinem, non quia sit in eo metaphorice fortitudo, sed est metaphorice leonina, vero autem divina, similiter finalizatio metaphorice dicitur motio, vere autem causalitas finis . . . " The true causality of the final cause approaches so much the physical action of the efficient cause that St. Thomas does not hesitate to say that the final cause *in some fashion* is reduced to the genus of efficient cause. Thus: *In I De Causis,* lect. I, Vivès, XXVI, p. 517b: " . . . et hujus ordinis (i.e. finalis causae) ratio,

c. Importance of Final Cause

It is not without reason that St. Thomas, as well as Aristotle, termed the final cause the "causa causarum".[86] Though the end is ever last in the actual order of execution it is first in the order of intention.[87] It is in truth only in this latter order that it really is a cause, and indeed, the cause of the causality of the other causes, for in the order of execution, when the end is ultimately reached, the causality of the end, as also that of the efficient cause, becomes quiescent. Consequently, it is to the order of intention that we must look for the causality of the final cause, and in this order, as we have already hinted, the end has a particular relation to the efficient cause.[88] On this relation St. Thomas is lucidly clear. The efficient cause is said to be cause with respect to the end, since the end is not realized save through the operation of the agent. On the other hand, the end is the cause of the efficient cause, since the latter does not operate except through the intention of the end. To clarify this a bit more, St. Thomas adds that the efficient cause is really

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ad genus causae efficientis reducitur. Nam finis intantum est causa inquantum movet efficientem ad agendum: et sic prout habet rationem moventis, pertinet *quodammodo* ad causae efficientis genus.

[86] *In II Phy.* 5d: "Est . . . causa finalis aliarum causarum causa; *In V Met.* 3, n. 782: "Unde dicitur (causa finalis) causa causarum, quia est causa causalitatis in omnibus causis"; cf. *De Verit.* 28, 7c; *S. T.* I, 5, 2, 1m; *In I Sent.* 8, 1, 3; *C. G.* III, 17, Praeterea, Finis.

[87] *S. T.* I-II, 1, 1, 1m: " . . . finis etsi sit postremus in executione, est tamen primus in intentione agentis; et hoc modo habet rationem causae"; *ibid.* 4c: "Principium autem intentionis est ultimus finis". Cf. *De Pot.* 5, 1c; *In I Met.* 4, n. 70.

[88] The final cause is not only related to the efficient cause but also the formal and material cause and this, not only in an indirect manner through the efficient cause, but directly too. St. Thomas in *De Prin. Naturae* (Mandonnet Edn., p. 14) says: "et (finis) facit materiam esse materiam, et formam, esse formam; cum materia non suscipiat formam nisi propter finem, et forma non perficiat materiam nisi per finem."

cause of that which *is* the end (that is to say, of the attainment of the end) but it does not make the end, an end (that is to say, it does not make the end to be a final cause). Thus, for example, a doctor may make a person healthy, but he does not cause the health to be an end. Health *is* such regardless of the action of the doctor, for it is a good, attainable and appetible. The final cause exercises its causality in quite a different manner. It is not the cause of that which is efficient, but rather it is the reason why the agent is efficient. In other words, health, in the sense of that which comes through the physician's skill, does not make the doctor a doctor, but rather, as a final cause, it makes him an efficient cause.[89] The two therefore complement each other in much the same manner as the material and formal causes. One cannot conceive of an efficient cause in operation, except "in ordine ad finem", since its action would receive its necessary complement only through the end; nor can one conceive of a final cause actually operative apart from an efficient cause. This interrelation is brought out more fully by a consideration ot the twofold order in which each is properly first, viz. the order of intention (final cause) and the order of execution (efficient cause). It is the thomistic position that in each order there must be something that is first or prior, otherwise there wouldn't be a second, or a third, or a last. Now in the order of intention, that which is first is that which as a principle moves the appetite, that is to say, a final cause. Were this principle taken away, there would be no movement on the part of the appetite. In the order of the execution however the principle is that whence the operation first begins (a.v. an efficient cause) and if this were removed nothing would begin to operate.[90] The two orders are clearly interdependent. As a matter of fact, so intimate is the association between the two that we are faced with the apparent antinomy: there is no efficiency unless there is a prior finality, and yet final cause presupposes the existence of an efficient cause. There is, however, no serious involvement in understanding this in the light of what St. Thomas has already said of the relation between the two causes. The first member of the supposed antithesis refers to actual efficiency, that is, efficient causes in operation, and simply means that no potentially efficient cause would determine itself to act, nor be determined unless influenced by a final cause, orienting it to an end. The second member again refers to causality in act and means that the good which is the end of every action could never be called a final cause nor exercise final causality unless it were related to the appetite of a being capable of tending in its direction.

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[89] *De Principiis Naturae* (Mandonnet edn.) p. 14: "Efficiens . . . dicitur causa respectu finis, cum finis non sit in actu nisi per operationem agentis; sed finis dicitur causa efficientis, cum efficiens non operetur nisi per intentionem finis; unde efficiens est causa illius quod est finis, ut puta deambulatio, ut sit sanitas; non tamen facit finem esse finem. Et ideo non est causa causalitatis finis, id est, non facit finem esse causam finalem: sicut medicus facit sanitatem esse in actu, non tamen facit quod sanitas sit finis. Finis etiam non est causa illius quod est efficiens, sed est causa ut efficiens sit efficiens: sanitas enim non facit medicum esse medicum, et dico de sanitate quae fit operante medico; sed facit quod medicus sit efficiens. Unde finis est causa causalitatis efficientis, quia facit efficiens esse efficiens." Cf. *In V Met.* 2, nn. 775-776; *ibid.* 3, n. 782.

We have seen now the concept,[91] causality and the cardinal importance of the final cause in the philosophy of St. Thomas, which concludes the study of the latter's general theory of the four causes in themselves and in their relations to each other. There is no question but what St. Thomas is indebted in great measure to the Philosopher for the broad outlines and frequently the minute details of this theory. But in the hands of the Angelic Doctor it has received extensive amplification, increased clarification and certain innovation. The laconic thoughts of the Stagirite have been expanded to more satisfying proportions, particularly in the matter of definitions and concepts. In addition, light has been thrown on the more involuted questions concerning the distinction and relations between the causes. Finally there has been definite contribution to and departure from the aristotelian system in the discussion of the formal extrinsic or exemplary cause, and in the broadened concept of efficient cause. With this understanding of the general thomistic theory, we are in a better position to make inquisition into the causality of efficient cause.

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[90] *S. T.* I-II, 1, 4c: "In finibus autem invenitur duplex ordo, sc. ordo intentionis et ordo executionis, et in utroque ordine oportet esse aliquid primum. Id enim quod est primum in ordine intentionis, est quasi principium movens appetitum; unde subtracto principio appetitus a nullo moveretur. Id autem quod est principium in executione est unde incipit operatio: unde isto principio subtracto, nullus inciperet aliquid operari."

[91] In discussing the concept of final cause the usual divisions that are given, though basically thomistic, have been omitted. Such divisions as *finis operis* and *operantis, finis qui, quo* and *cui* ultimate, intermediate and proximate, etc., have not been deemed necessary for an understanding of the concept. For the meaning of these terms, consult any scholastic manual, e.g. Gredt, *Elementa Philosophiae Aristotelico-Thomisticae*, vol. II, thesis 37; Coffey, *Ontology*, pp. 404 ff; Vincentius Remer, *Ontologia,* pp. 228 ff.

CHAPTER X

CAUSALITY OF EFFICIENT CAUSE

By the causality of efficient cause is meant that particular *ratio* and *reality* which essentially characterizes the efficient cause as such and which thus formally constitutes it in a species distinct from others. In the preceding chapter it has been seen that this reality which denominates the cause as efficient and accounts for its specific mode of influx is action,[1] or to speak more concretely, it is the acting or the *actual operation* of the potential cause.[2] It is through action that what we term the effect proceeds from [3] and is dependent on the efficient cause.[4] All actual efficient causality and true efficiency bespeaks action tending from an agent toward another [5] which is its term. Thus far the thomistic position is quite clear. Difficulties arise immediately however when one seeks to define action and to make precise the particular aspect of it which formally constitutes the cause as efficient. We have noted the elusive character of its concept and definition due to the fact that it is one of the supreme *genera* of thought and being. Added to this difficulty are the two following facts: there is a type of action that is not causal;[6] there is moreover a type of causal action which transcends that of predicamental action, and consequently is not included in this supreme category.[7] In spite of these difficulties, let us try to clarify the thomistsic position on this important question, let us attempt to fix upon the irreducible requirements of causal action and the particular aspect of this action which formally constitutes the cause as efficient.

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[1] *Supra,* pp. 187-188, Cf. *QQ. DD. De Verit.* 22, 2c: " . . . influere causae efficientis est agere." *In V Met.* 3, n. 775: "Efficiens est causa inquantum agit."

[2] John of St. Thomas is quite correct in saying that it matters little whether one speak of it in the abstract or in the concrete. It is substantially the same. Cf. John of St. Thomas, *Cursus Philosophicus Thomisticus,* vol. II, Philosophia Naturalis, Paris, Vivès, 1883, p. 237a. Action is a form which means nothing if it does not bespeak the actual exercise of action. Nevertheless the concrete expresses more graphically the activity and actual operation of the efficient cause—a fact which accounts perhaps for St. Thomas' fondness for the use of the verb "agere" in expressing the causality of efficient cause. Thus: "Quod motivum dicitur secundum potentiam, movens autem in ipso agere in quantum agit actu." *In III Phy.* 4, Vivès, vol. XXII, p. 391b, me. See also preceding note.

[3] *C. G.* II, 32, Adhuc: "Effectus procedit a causa agente per actionem ejus."

[4] *Ibid.* 31, Si enim: " . . . per actionem . . . agentis, effectus a causa efficiente dependet." Cf. *De Pot.* 5, 1c.

[5] *S. T.* II-II, 183, 3, 2m: "Efficientia importat actionem tendentem in aliud."

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[6] Such is the action involved in the immanent processions of the Divine Persons of the Blessed Trinity, as well as the eternal contemplation of the Verbum and everything contained therein. Such too is the action that is proper of certain immanent acts of cognition and appetition outside the Divinity. Some would classify all immanent actions as efficiently non-causal. We shall attempt to show that this latter position is not thomistic and that, if certain immanent actions are called non-causal, it is not precisely because they are immanent as such but because they are improperly called actions or because they cannot be said to have a term that is really distinct from the agent and its potency. The latter is especially true of the above mentioned immanent actions of the Divinity. The immanent term in the Divine processions can in no way be said to be really distinct in essence from the immanent principle, which real essential distinction is the minimal requirement for all causality, whether efficient or not.

[7] Such is the creative activity of God. For two reasons does this divine action transcend predicamental action. In the first place the latter is not the substance of the agent (as is the action of God in creating and in all efficient causation) but rather inheres in its substance as an accident in its subject and hence is one of the nine accidental predicaments. (*C. G.* II, 9, Adhuc: "Actio quae non est substantia agentis inest ei sicut accidens subjecto; unde et actio inter novem praedicamenta accidentis computatur"). In the second place, the creative action is action that virtually proceeds from God without motion, for it requires no preexisting subject matter on which to act. (Cf. *S. T.* I, 45, 2, 3m, *C. G.* II, 17). Action however to the extent that it is predicamental bespeaks something flowing from the agent with motion. (*In I Sent.* 8, 4, 3, 3m: "Actio secundum quod est praedicamentum dicit aliquid fluens ab agente cum motu.")

1. *Action in General*

Action in general can be descriptively defined as the actuality of a virtue or active potency.[8] We say "actuality" rather than "actualisation" for the latter term, implying a process connotes the previous inactivity of the active potency. That such previous inactivity and consequent mutation of the active potency is not essential to the concept of action as such is evident not only in the immanent and virtually *transient* action of God, but also in the immanent actions proper to the angelic nature. In the former case, divine action, being identical with the pure actuality of the divine nature is exclusive not only of all subjective passive potency, but also of all unrealized active potency. In the case of angelic action, the perfection of their immanent intellectual operations is such that they are not now in potency to knowledge, and now in possession of knowledge, but they are always in the act of knowing. Their intellects are always actuated by their proper intelligibles, viz. immaterial things.[9] The actuality of the virtues of other beings however does require an antecedent actualisation, whereby the transition "ex otio ad actionem" is effected (and indeed a previous action of another being or potency producing the necessary stimulation). Thus the human intellect, being now in potency and now in the act of cognition with respect to its intelligibles (the natures of material things) requires that its potency be always actualized by a previous intellectual process. Such necessity however pertains not to the essence of action as such, but to the deficiency of human action. The actuality itself is all that is required for the concept of action in general. Such a description, because it is so general, applies equally well to non-causal as well as causal action.[10]

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[8] *S. T.* I, 54, 1c: "Actio enim est proprie actualitas virtutis; *In III Phy.* 4, Vivès, vol. XXII, p. 302a: "Actus quidem activi vocatur actio"; *C. G.* II, 9: "Actio alicujus rei est complementum potentiae ejus; comparatur enim ad potentiam sicut actus secundus ad primum."

[9] Cf. *S. T.* I, 54, 4c.

[10] The use of the terms "causal" and "non-causal" in this connection means *efficiently* causal and *not efficiently* causal, respectively. Unless

2. *Distinction of Causal Action from Improper or Formal Action*

In order to comprehend the nature of action which constitutes a being an efficient cause, it must be distinguished from this non-causal action. The latter may be of two types: (1) the actuality of an active potency which is indeed productive of a term, but of a term that is not essentially different from the potency (and the only instances of this are the divine actions of generation and spiration); (2) the actuality of an active potency which is, *as such,* productive of no term beyond itself.[11] Included in this latter group by St. Thomas are the formal immanent actions of understanding *(intelligere),* feeling *(sentire),* willing *(velle)* [12] and in general all formal actions of the external senses, as sight, hearing, touch, etc.[13] Truly *causal* actions on the other hand are those which are actually productive of a term beyond the actions themselves and it is this which formally constitutes them as causal. The nearest approach to an explicit expression of this distinction in St. Thomas is in his familiar

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otherwise specified this shall be the meaning of the unqualified terms "causal" and "non-causal". We shall see that "non-causal" actions are always formally causal. It is well to note in addition that by the term "non-causal" we do *not* mean "uncaused", or "not efficiently caused".

[11] The phrase "as such" is stressed for an action of this type may be virtually productive of a term beyond itself. Thus intellectual understanding *(intelligere)* is an instance of an action denoted by this class of actualized active potencies. It is *formally cognitive,* wherein for example the intellect is informed by the *species expressa* or *verbum.* It is virtually productive however, when the intellect thus informed proceeds to divide, compose, reason discursively, etc. (immanent terms) or when, in conjunction with the will it becomes the principle of actions with transient terms, through command of the executive faculties. In itself, however, it remains formally cognitive and is opposed to this function of virtual productivity, as well as to the process of intellection *(intellectio)* leading up to it, viz. the *production* of the *species impressa* and the expressing *(dictio)* of the *verbum* itself. These in a proper sense are actions that are *causally* cognitive, rather than formally cognitive as we shall see. Cf. *De Verit.* 8, 6c.

[12] Cf. *S. T.* I, 18, 3, 1m; 34, 1, 2m; 54, 1, 3m and 2c; *In I Sent.* 40, 1, 1, 1m, etc.

[13] Cf. John of St. Thomas, *op. cit.* vol. I, *Logica,* p. 544b.

division of action *(agere)* into formal and effectual or efficient.[14] Formal action is really a formal cause; it is nothing more than what a form does, viz. it *actuates* a potency. Thus, whiteness is a form of the whitened wall. In a sense we can say that whiteness *makes* the wall white. Effectual or efficient action is really the causality of the efficient cause; it is what the agent does, which in the example cited would be the *actualisation* of a potency. It is the agent who makes the wall white. What the agent does efficiently is what the form does formally.[15] Both are called actions, but the Angelic Doctor affirms that, as applied to the formal cause, the use of the term *action* is somewhat improper and rather abusive.[16] With the exception of the first type of what we have termed non-causal actions, viz. those involved in the divine processions, all others bear this stamp of action in the improper sense. Only as applied to action that is really productive of a term beyond and distinct from itself is the word used in its proper signification. It is truly *efficiently causal,* whereas the improper use of the term is in a true sense only *formally causal.*[17]

3. *Causal Action May Denote Immanent as Well as Transient Term*

Truly efficiently causal action then is the actuated active potency in the act of producing a term distinct from itself. Now from this description as it stands there seems to be no sufficient reason for insisting, as some Scholastics do, that this term must be

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[14] *In I Sent.* 17, 1, 1, 5m; *In II Sent.* 26, 1, 2, 4m; *De Malo,* 2, 11c; 5, 5, 16m; *S. T.* I, 48, 1, 4m.

[15] *De Malo* 5, 5, 16m: " . . . idem est quod agens facit effective, et quod forma facit formaliter."

[16] *Ibid.* 2, 11c: "Dicitur autem proprie quidem agere ipsum agens quod actum producit. Abusive autem id quod agens agit; sicut proprie quidem pictor facit album parietem; sed quia fecit album per albedinem, consuevit etiam dici quod albedo facit album."

[17] We shall see further on (*infra.* p. 215) that action makes the agent an *efficient* cause by functioning itself as an accidental formal cause of the agent, or more correctly, of the agent's active potency. Being the act of, it is therefore a perfecton and *form* of its potency.

extrinsic to the agent in order to be causal. These would maintain that all immanent actions of the agent are non causal, and in fact would equate the two, affirming that only those actions are causal which have a term extrinsic to the agent. Thus Harper avers that "causation is necessarily transient and terminative extrinsiclly". And the reason why? "Thought in man's mind is an immanent action" he says, "because it begins and ends with the thinker. Therefore the thought is the formal cause to the mental faculty; rather than the mental faculty, the efficient cause of the thought".[18] Gredt too goes to great lengths to prove that immanent actions which he calls "metaphysical actions" are not causal.[19] He seems definitely of the opinion that transient, physical, predicamental action alone verifies the concept of efficient cause. Immanent actions such as the cognitive and appetitive actions are not causal, but rather qualities "primae speciei", that is to say, operative habits which dispose well the cognitive or appetitive potencies. An immanent action does not come under the classification of a causal action precisely because "it does not consist in the production of an effect, nor does it contain the notion of a transition to a term, but of itself is ultimate."[20] Both thinkers however lapse into inconsistency, revealing, it appears, the rather insupportable character of their contention. Harper unconsciously contradicts himself when he says " . . . a man's intellect in a normal state is cause of his thoughts",[21] (in which connection he obviously means *efficient* cause). And the Benedictine philosopher is forced to state that "every created cognition which takes place by a transition from potency to act, *necessarily arises from the efficient causality of the knowing subject* which produces, *efficiently,* in itself, the cognition, nor does the cognition perdure save through the constant *efficient* influx of the knowing subject."[22]

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[18] *Metaphysics of the Schools,* vol. II, p. 12.

[19] Jos. Gredt, O.S.B., *Elementa Philosophiae Aristotelice-Thomisticae,* Herder & Co., Friburg, Brisgoviae, 1937, vol. I, pp. 234-236, 368-370.

[20] *Op. cit.,* p. 235: "Actio immanens . . . non est causalitas . . . Non enim consistit in productione effectus nec rationem habet viae et tendentiae ad terminum, sed secundum se ultimum est."

[21] *Metaphysics of the Schools,* vol. II, p. 165.

This latter statement of Gredt appears indeed to be more conformable to the real and therefore more expressive of truth. Who is to say that the index of causal action is necessarily the production of something *extrinsic* to the agent? Such would be a very arbitrary and in fact a very inconvenient position, for if no immanent actions are causal then one would be forced to the inconvenient and rather embarrasing conclusion that all such human actions are immanently uncaused! That such cannot be imputed to St. Thomas seems sufficiently clear from the following.

1. It will be remembered that the so-called immediate division of causes into intrinsic (formal and material) and extrinsic (efficient and final) was *not one to which the Angelic Doctor subscribed.*[23] Apparently such a division, if it occurred to him, would be artificial and not natural. We have seen that he spoke of an extrinsic formal cause. It is equally true that he acceptel an intrinsic immanent efficient cause for

2. In regard to at least some immanent actions, he definitely implies that they are causal. Can we say for instance that it is mere imagery, lacking in philosophical precision when he says that the active intellect *illuminates* the phantasms, *abstracts* the intelligible species or *makes* them intelligible in act and *perfects* the possible intellect? All these verbs connote action, and what is more an immanent term of action,[24] so that St. Thomas can say that "interiorly the light of the intellect" (i.e. the intellectus agens) "is the *principal cause of science.*"[25] *The only cause this can possibly be is the efficient cause. Moreover the Angelic Doctor*

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[22] *Elem. Phil. Aristotelico-Thomist.* vol. I, p. 358: " . . . cognitio omnis creata quae fit cum transitu de potentia in actum, *necessario oritur causalitate efficiente subjecti cognoscentis* quod in se *efficienter* producit cognitionem, neque cognitio perdurat nisi sub iugi influxu *efficiente* subjecti cognoscentis." (Italics mine.)

[23] Cf. *supra,* p. 179, n. 40.

[24] Cf. *S. T.* I, 85, 1, 4m; *De Anima,* unica, 4, 6m; *Quod*1, VIII, q. 2, a. 3c; *De Verit,* 10, 6, 7m.

[25] *S. T.* I, 117, 1, 1m: " . . . interius lumen intellectus est principalis causa scientiae."

expressly affirms that in order that the *species intelligibilis* may be united to the intellect (and only with such a union is there formal cognition) there is required a previous *actio* and *passio;* an *actio* whereby the *intellectus agens* makes the species intelligible in act; a *passio* whereby the *intellectus possibilis* receives the intelligible species. Formal cognition follows upon this action or passion *as effect follows upon its cause.*[26]

Consequently, we have ample proof by implication that for St. Thomas at least, not all immanent action are non-causal.[27] If therefore an immanent action is said to be non-causal it is not precisely because it is immanent as such, but because there is no *transition from subjective potency to act* and hence *no term produced.*[28]

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[26] *De Verit.* 8, 6c: " . . . ad hoc quod intelligibile uniatur intellectui requiritur actio vel passio; actio quidem secundum quod intellectus agens facit species esse intelligibiles actu; passio autem, secundum quod intellectus possibilis recipit species intelligibiles. . . . Sed hoc quod est intelligere, consequitur ad hanc passionem vel actionem sicut effectus ad causam."

[27] No contrary argument from St. Thomas can be brought forth from the fact that in *Opusc.* XLIV (aliter XLVII) we read: "Actio immanens non est causa effectiva rei ut sit actu sed idem quod est in actu: calere enim idem est quod esse in actu caloris: et secundum talem actionem dicitur agere aliquid quod est formaliter tale, sicut calor facit seu agit formaliter calidum illud in quo est". (Vivès, vol. XXVIII, Tractatus IV, c. 7, p. 98b). In the first place the Opusculum (entitled *Summa totius logicae Aristotelis*) is most probably spurious. It is contained in neither Grabmann's nor Mandonnet's lists of St. Thomas' authentic writings. In the second place the substance of the text in no way contradicts the statement that there are some immanent actions which are causal, for the text refers only to an immanent action which is "idem quod est in actu" by which the author obviously refers to that type of immanent action which we have said is improper, that is to say, *formal action.* This is clearly brought out in the illustration which follows where we read "Calor *facit* seu *agit formaliter* calidum id in quo est."

[28] Cf. *S. T.* I, 54, 4c, where St. Thomas, contrasting the immanent operations of the angelic and human natures points out the necessity of postulating both an active and a passive (possibilis) intellect in the latter, together with the production of the *species impressa.* For the need of expressing this *species (dictio)* by a *verbum mentale,* cf. *De Pot.* 8, 1c.

A final word now on the opinion of Harper that thought is the formal cause to the mental faculty rather than the mental faculty being the efficient cause of thought. It is not repugnant that something which becomes an accidental formal cause of a being should have been efficiently caused by a distinct faculty *(intellectus agens)* of that very being. Thought, in the sense of formal cognition can become a formal cause of the very faculty which called it into being. As the act, the perfection, the determination of the possible intellect, it is an accidental formal cause. As a term of a causally cognitive process it is the product of efficient causal action. It would indeed be rationally objectionable, because absurd, if we were to say that thought, as a form, efficiently caused itself.[29] But there is no difficulty in saying that the mental faculty is cause of the thought and the thought is the cause of the mental action if the causality of each is understood in a different genus. This is simply in keeping with the axiom which St. Thomas has borrowed from Aristotle, to the effect that causes may be causes of each other.[30]

4. *Formality of Action Which Makes the Agent an Efficient Cause in Act*

Having determined now what causal action is as such, having seen that it consists in the actuality of an active potency,[31] which is productive of a term distinct from itself regardless of whether this term is intrinsic or extrinsic to the agent in question, it remains now to fix upon the precise aspect of this action which in itself can be said to constitute formally the causality of the efficient cause. The thomistic view on the matter is that this formality consists not in the order or reference of the agent to its term as Scotus and his followers would affirm;[32] nor in the becoming or dependence of the effect viewed passively as Suarez seems to hold;[33] but rather in the production of the effect viewed actively as coming *from* a being and designating it as cause.[34]

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[29] Cf. *In Met.* V, 2, n. 774 (Cath. Ed.) "Secundum idem genus causae aliquid esse causam et causatum est impossibile."

[30] *Ibid.:* "Duo ad invicem sibi sunt causae: quod impossibile est in eodem genere causae." Cf. Aristotle, *Met.* IV, 2, 1013b, 9 ff.

[31] This actuality of the active potency is frequently called by St. Thomas the *actus secundus* of a form as opposed to its *actus primus* which is exhibited in its function of formal cause. Cf. *S. T.* I, 48, 5c; I-II, 3, 2c; De Verit. 27, 3, 25m; *C. G.* II, 59, Adhuc quod.

Let us analyse this thomistic perspective more fully. It must be realized that action as it is manifested in experience may be regarded under a threefold aspect; as related to an effect, as related to a subject acted upon or as related to an agent.

a) As related to the effect it implies its becoming or production.
b) As related to a subject acted upon it connotes motion and passion.
c) As related to the agent it implies the agent's "actus secundus" or actual operation, and in the cases which experience offers, this means the agent's transition from inaction to operation.

Now if we except the causal activity of God in one of whose actions (creation), b is missing and in all of whose actions c is missing at least to the extent of His "actus secundus" being a transition from potency to act, all of these factors are required for a being to be designated as an agent. For nothing is an agent before producing a term or effect, since if it acts causally it must do *(agere)* something; nor, in the case of all created agents which presuppose something on which to act,[35] is there agency without motion and a corresponding *passio* of that which is acted upon; nor finally is there agency at all save in the actual operation. Nevertheless, *per se* and *formally* action does not constitute efficient causality except insofar as it is regarded from the viewpoint of the agent with ordination to the term as to an effect. If in the active production of the effect there is required in addition the change of a subject (though this is not always required as creation clearly shows), then the action will connote over and above the effect produced the motion in the subject acted upon. This is verified always in predicamental action which necessarily bespeaks a flux from the agent with motion and consequent passion.[36] (This is one reason why St. Thomas maintains that creation is *not* predicamental action. It is not *motion and hence does not imply mutation* or *passio* for the effect to be produced).[37] Predicamental action therefore, in addition to an effect produced always contains a relation to a subject acted upon. However, if one is to view action from the aspect alone of that particular formality which constitutes efficient causality in act then this latter relation to a subject need not be considered since it is not the subject that is caused by the action but rather, the term or effect which in turn changes (formally, not efficiently) the subject, being the act of the latter's passive potency. Action however necessarily and sufficiently determines a being to the genus of efficient cause to the extent that it signifies the active becoming or the producing of an effect. For this by itself denominates principally and directly a being as actual agent while at the same time referring terminatively and exercitively to a being effected.

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[32] See Scotus, *In IV Sent.* 13, 1; *Quodl.* 13. Cf. *John* of St. Thomas, *op. cit.*, vol. II, p. 234b. Numbered among the adherents of this position is also the Jesuit Philosopher of the early 17th century, Cosmus Alamannus. Cf. Cosmus Alamannus, *Summa Philosophiae,* Ehrle Edit. Paris, Lethielleux, 1885, Tome I, Sec. 1, q. 14, a. 1, 2m, p. 205b, ff. Franciscus de Sylvestris (Ferrariensis) is dangerously near this position when he says that action is nothing *in the agent* but *relation* (cf. *Commentaria in Libros Contra Gentiles.* Rome 1898, vol. II, In Librum II, c. 1, proemium).

[33] *Disputationes in Metaphysicam Aristotelis,* XVIII, sec. 10, n. 6: "Actio est id quo causa efficiens actualiter attingit suum effectum et quo effectus pendet a sua causa; *nam est ipsamet dependentia effectus facti a causa faciente*"; n. 8: "Est enim ille modus emanatio *seu dependentia effectus a causa agente.*" (Berton Edition, Paris, Vivès, vol. XXV, pp. 681b, 682a. Italics mine.)

[34] Cf. John of St. Thomas, *op. cit.,* vol. II, p. 236b: "(Actio . . . est formaliter causalitas agentis) ut dicit actum secundum ipsuis agentis, qui est ipsa emanatio seu fieri active et secundum denominationem ab".

Although the Angelic Doctor has nowhere explicitly discussed this question there can be little doubt but what this represents his opinion. When he states so unequivocally that "a being is an efficient cause to the extent that it acts," [38] it doesn't seem possible that any other interpretation can be put upon this proposition than that which has been expressed. Certainly, utterly foreign to his thought would have been the simple equation of action with the becoming or the dependence of the effect, (which, we have seen, appears to have been the view of Suarez). In the first place the association of becoming with dependence of the effect indicates that the becoming is regarded passively, i.e. *"ex parte termini"* in which case it must be said that it necessarily presupposes the becoming viewed actively, i.e. *"ex parte agentis"*, as proceeding from the being which it (the active procession or becoming) designates as efficient cause in act. In the second place there is action (Divine action) without a becoming of the effect. Finally (and if for no other reason, St. Thomas would reject the suaresian view on this score) to identify action with "dependence of the effect produced on its acting cause" is to understand it in a sense in which it possesses no distinguishing characteristic whereby it is differentiated from other causes. For what is a cause in general but that which "implies dependence of one thing on another" [39]—a mark which is in no way distinctive of the efficient cause or its action?

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[35] Cf. *S. T.* I, 45, 2c; *De Pot.* 3, 1c.

[36] Cf. *In I Sent.* 8, 4, 3, 3m: "Actio . . . secundum quod est praedicamentalis dicit aliquid fluens ab agente et cum motu."

[37] Another reason of course is that the action of God is His very substance and not, like predicamental actions, an accident of His Being.

Equally at variance with thomistic thought is the opinion of Scotus and his followers that action as the special *"ratio causandi"* of the agent formally consists in an intrinsic relation, that is to say, a predicamental relation which is subjected in the agent and which results from the positing of a term. This is to confuse the formal essence of action and causing with the formal essence of relation. Causation by action, i. e. efficient causation is really distinct from the relation of causality even though the nexus or causal relation between two terms resulting from efficient causality takes its rise from the action. Efficient causality in act ceases when and if action ceases. But though action may cease, the formal relation of causality i. e. the relation of cause to effect and effect to cause (called by scholastics the "esse ad") continues. And the reason for this continuation of the causal relation is that action has left in the cause and in the effect a permanent determination which is the foundation of a relation (called the "esse in") in virtue of which each has a reference to the other. Yet this "esse in" or foundation is however distinct from and a resultant of the action and cannot be said to be in any way the action itself.[40]

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[38] *In V Met.* 2, n. 775: "Efficiens est causa inquantum agit".

[39] *S. T.* I, 33, 1m: "Hoc nomen, causa videtur importare . . . dependentiam alicujus ab altero".

Nevertheless, though the precision of thomistic thought calls for a real distinction between action on the one hand and relation and its foundation on the other, by a strange misunderstanding of the Angelic Doctor, he is cited as favoring the opinion that the particular formality of action which constitutes efficient causality is the relation itself. The misunderstanding arises from an interpretation put upon a few texts in the *Summa Theologica* wherein St. Thomas distinguishing the action involved in the divine processions and in creation from action with motion affirms that if there is action without motion then it implies nothing else than an order (relation) of origin according to which something proceeds from its principle or cause.[41] Consequently, it is argued that since neither motion nor action which involves motion constitutes the causality of efficient cause, the latter must consist solely in relation. As John of St. Thomas points out such a construction placed upon the words of the Angelic Doctor arises from the failure to understand that he is speaking of a cause that is actually operating, i. e. "in actu ultimo et secundo ad operandum".[42] It is already supposed therefore that such a being has that formality by which it is an efficient cause, or

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[40] Cf. Gredt, *op. cit.,* vol. II, n. 742, c.p. 142; vol. I, n. 191, 3, p. 157; n. 283, 1, p. 236.

[41] *S. T.* I, 41, 1, 2m: "Remoto motu actio nihil aliud importat, quam ordinem originis secundum quod a causa aliqua vel principio procedit in id quod est a principio". *Ibid.* 45, 3c: "Subtracto autem motu ab actione et passione, nihil remanet nisi relatio." Cf. *ibid.* 45, 2, 2m.

[42] Cf. *op. cit., vol.* II, p. 237b: " . . . respondetur dictum S. Thomae" (that action implies nothing more than the order of origin when motion is removed) "intelligi de causa, quae est in actu ultimo et secundo ad operandum, in tali enim causa remoto motu non datur fluxus aliquis, seu actio per modum ultimae actualitatis, quia jam ista supponitur in causa, sed solum remanet ordo originis."

(in the case of the divine processions) a productive principle, viz. action.[43] If now from this acting cause or acting principle we remove or abstract motion which is its ordinary concomitant in the causality of finite beings (and this is a necessity in the actions that are under discussion, viz. those of the divine processions and creation) then it is true that nothing remains but the relation with, of course, its indispensable foundations in both termini, the acting principle and its principiate or the cause and its effect. It is seen then, that a proper understanding of the adduced texts reveals that they in no way lend themselves to the support of the view which reduces the causality of efficient cause to causal relation.[44]

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[43] In the Divine Processions, the relation of Paternity though really identified with the action of the Divine Progenitor generating is distinct *per modum significandi* and mentally presupposes the latter. Similarly the relation of Spiration though really identified with the action of the Father and Son commonly spirating is distinct *per modum significandi* and mentally presupposes it. In creation, the relation of God to creatures which in God Himself is a *relatio rationis* and not a real relation, is really distinct from the action of creation which it presupposes.

[44] Franciscus de Sylvestris (Ferrariensis) has masterfully massed his arguments to prove that action is nothing in the agent but relation and he is firmly convinced that this is St. Thomas' opinion (cf. *Commentaria in Libros Contra Gentiles Sancti Thomae,* Rome, 1898, vol. II. In Librum II, c. 1, proemium). One hesitates to differ with so eminent an authority but it seems he has missed the entire point when he cites the two texts quoted above (*S. T.* I, 41, 1, 2m; 45, 2, 2m) as proving his position. When St. Thomas says equivalently, "Take motion away from action and there is nothing left but relation," he certainly does not mean that action (in the agent) is nothing but relation. Action is action (the actuation of a potency productive of a term) and relation is relation (the *ordo* of one term to another). The latter is naturally subsequent to (though temporally simultaneous with) action and therefore *naturally presupposes* the latter (cf. *S. T.* I, 34, 3, 2m). Not even God could be related to creatures (understanding a relation of reason only since there is no real relation of God to Creatures) unless creatures existed. And they would not exist, nor could He be called a creator, unless He *actually produced them.* Creation (taken actively, in God) is not then the mere non-real relation of God to creatures. Rather does it signify *divine action* which is His Essence with such a relation to creatures. (*S. T.* I, 45, 3, 1m:

5. *Action—Perfection of the Agent?*

Having considered that causal action is the actuality of an active virtue in its production of a term or effect, having determined the precise formality of action which makes a being an efficient cause in act, it may now be asked whether or not St. Thomas regarded such action as a perfection of the agent.[45] The question is one which leaves room for doubt, for it would appear that there is a conflict of opinion in the mind of the Angelic Doctor himself. Speaking primarily of transient actions which pass beyond the agent (though the same may be said of those immanent actions which are immanently causal) he affirms quite clearly that they are perfections, not of the agent, but of the being acted upon.[46]

"Creatio active accepta significat actionem divinam cum relatione" [non reali sed rationis tantum] "ad creaturam"). And divine creative action is the Divine essence (action) actually (in actu secundo) productive of being "ad extra". (*De Pot.* 3, 3c: *Si creatio sumatur active, sic designat Dei actionem, quae est ejus essentia, cum relatione* [*rationis*] *ad creaturam*). Moreover, creation considered passively (i.e. as it is in creatures) is indeed nothing more than (real) relation with newness of being. But the relation is not the being, and neither of these is the *action* of creation. As a matter of fact the relation is itself an *effect* of the *action* of creation and cannot therefore be the essence of that action. For in speaking of the relation and the subject in which it inheres St. Thomas says there is a sense in which relation is posterior to the thing created, viz., when it is viewed as an accident. Regarded however according to its formal "ratio", i.e. causatively (*causative*) or "to the extent that it arises *from the action of the agent* (*prout ex actione innascitur praedicta relatio*) it is, in a sense, prior to its subject "just as the divine action itself, which is its (the relation's) proximate cause (*sic* [*relatio*] *est quodammodo prior subjecto, quae sicut ipsa divina actio, est ejus causa proxima*—De *Pot.* 3, 3, 3m). See also *In II Sent.* 1, 1, 2, 4m.

[45] The question does not consider actions that are *formally* immanent. There is no doubt but what these *are* perfections of the agent. Thus: "Hae autem operationes" (i.e. actiones manentes in ipso operante) sunt perfectiones operantis: intellectus enim non est perfectus nisi per hoc quod est intelligens actu" (*De Pot.* 10, 1c). The intellect is *"intelligens actu"* only when it is informed by the "verbum". St. Thomas speaks here only of formally immanent actions.

[46] Cf *De Pot.* 10, 1c: "Haec quidem operatio" (i.e. transiens ab operante in aliquid extrinsecum) "non est perfectio operantis sed operati". Note,

Nevertheless, there is reason to believe that in some sense even these transient actions are perfections of the agent. Thus in a preceding question of the *De Potentia,* he states that the action itself which is a medium between the agent and the being acted upon is a certain perfection of the agent and consequently, that at which the action is terminated is said to be the agent's good.[47] Are these opposing statements compatible? If so, in what sense is action the perfection of the agent?

To the first question St. Thomas would respond that they are perfectly compatible. Action is at one and the same time the perfection of the agent and of the patient. This is not contradictory, for the word, perfection, is employed in two different significations when predicated of each. Like the word *facere* from which it is compounded the word *perficere (per-facere)* originally had two meanings,[48] one associated with efficient causality, the other with formal causality. Whereas however *factio* was more properly connected with efficient causality and only secondarily and improperly connoted formal causality, *perfectio* on the other hand was more frequently linked with formal causality (no doubt because its root depends on the past participle of *factio*) though with St. Thomas it retained an active sense (as active indeed as the word *calefactio*).

The solution of the difficulty rests in this duality of meaning. When it is said that action is the perfection of the thing acted upon, the Angelic Doctor could only have employed the term in its efficient sense. For it would have been entirely misleading

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the discussion throughout revolves around action with motion, action therefore, that supposes a subject acted upon which is perfected by the action. It does not refer then to the action of creation where no preexisting subject is postulated. After we have resolved the question concerning transient action with motion, we shall briefly consider whether and in what sense the action of creation may be said to be a perfection of God.

[47] *Ibid.* 7, 10, 1m: " . . . ipsa actio media" (i.e. media inter agens et passum) sit quaedam perfectio agentis; et per consequens id ad quod terminatur actio est bonum ejus. Cf. *De Verit.* 4, 2, 7m.

[48] The word *facere* had the same two meanings as the word 'agere", stated above, pp. 202-203, praesertim, n. 16, p. 203.

and incorrect to say that the action of the agent is the *formal perfection* of the subject acted upon. What formally perfects the latter is the act or entelechy or form which comes to the patient, actuating its passive potency. This is what the agent efficiently causes.[49] This *is what is effected by its action. In this sense only then is action a perfection of the "passum".*[50] On the contrary when the same action is said to be a perfection of the agent, the term is used in its more proper sense, i. e. it means that the action is a formal rather than an effective perfection of the being because it designates or specifies it as an efficient cause in act, thus fulfilling the definition of formal cause, albeit an accidental or secondary formal cause. St. Thomas implicitly places operation in the class of secondary formal cause, distinguished from primary formal cause when he says:

> Perfection is of two kinds, viz., primary and secondary. Primary perfection is that according to which [51] a thing is perfect or complete in its substance; this perfection is the *form* of the whole arising from the integrity of parts. Secondary perfection however is the end; the end may be either operation, as the end of the lyrist is to play the lyre; or it may be something at which one arrives by operation, as the end of the builder is the house which he makes by building.[52]

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[49] Cf. *In III Phy.,* 4, Vivès, vol. XXII, p. 391b: "Movens est activum mobilis, i.e. *actum mobilis causat*". Obviously the "movens" is an efficient, not a formal cause of the act of the "mobilis". Cf. *In XI Met.* 9, n. 2311, Cath. Edit.: Motus est actus motivi inquantum facit motum."

[50] It would be preferable to say that action is (efficiently) perfective of the latter rather than its perfection. "Perfective" seems to contain a more active connotation.

[51] The "perfectio, id secundum quod" (see next note) is the same as the "forma secundum quam" which is St. Thomas' pithy designation of formal cause as distinguished from the "forma a qua" (efficient cause) and "forma ad quam" (exemplary cause). Cf. *De Verit.* 3, 1c and text above, p.

[52] *S. T.* I, 73, 1c: "Duplex est perfectio; prima et secunda. Prima quidem perfectio est, secundum quod res in sua substantia est perfecta; quae quidem perfectio est forma totius, quae ex integritate partium consurgit. Perfectio autem secunda est finis; finis autem vel est operatio,

Now by primary perfection, the Angelic Doctor undoubtedly means the substantial formal cause of the being, that by which it enjoys its species;[53] by secondary perfection he means without question a secondary, accidental formal cause. He calls it the end (finis). But the end is an actual perfection of the being, not as a final cause, but as an end attained, therefore as a formal cause. "Each thing is said to *be* (i. e. to *exist)* for (the purpose of) its operation".[54] It is said to be perfect however only to the extent that it is in act and in operation.[55] Operation therefore is something superadded to the being's first perfection.[56] Consequently it must be an accidental formal cause and in this sense a perfection of the being as agent.[57]

Confirmatory proof that action in the sense indicated is a perfection of the agent is drawn from other thomistic principles. Thus the Angelic Doctor says that "action is the actuality of a virtue as existence is the actuality of substance." [58] But existence is the act and the perfection of substance. Hence action, similarly, is the act or perfection of an active potency. Again, every

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sicut finis citharistae est citharizare; vel est aliquid ad quod per operationem pervenitur; sicut finis aedificatoris est domus, quam aedificando facit". Cf. *S. T.* III, 29, 2c; *C. G.* II, 46, Amplius, Perfectio; III, 25, Item, Propria; III, 64, Item, Quaelibet.

[53] Cf. *S. T.* III, 29m, 2c: Here the primary perfection is called the "forma ex qua speciem sortitur".

[54] *S. T.* I-II, 3, 2c: "Res unaquaeque dicitur esse propter suam operationem".

[55] *Ibid.:* "Unumquodque autem intantum perfectum inquantum est actu; nam potentia sine actu imperfecta est. . . . Manifestum autem quod operatio est ultimus actus operantis; unde et actus secundus a Philosopho nominatur."

[56] Cf. *C. G.* II, 46, Amplius: "Perfectio secunda (i.e. operatio) in rebus addit supra primam perfectionem."

[57] Noting that it is only while playing and building that the lyrist and the builder are actual efficient causes and that the playing and building are actions of each respectively, it will be seen that the actions are truly secondary perfections superadded to the beings as beings and even as potential agents (for an active potency without its act is imperfect). Cf. note 52.

[58] *S. T.* I, 54, 1c: "Actio . . . proprie est actualitatis virtutis sicut est actualitas substantiae, vel essentiae.

action which is not the substance of the agent is an accident of it, inhering in it as in a subject.[59] But every accident is of its nature a form of that to which it adheres and every form is an act and therefore a perfection of that which it actuates. Consequently every action is an accidental perfection of its principle. Finally, St. Thomas is of the conviction that beings are more perfect and approach more nearly the perfection of God by acting than by mere being, however noble, for the perfection of God consists in unceasing action which is His very substance. Out of the immensity of His goodness, He decreed that there be beings who share in His action and who thus approximate His own purely actual Being and active Essence. To this end He created beings *capable* of acting, whose power (of action) is made perfect in the actual exercise of this power, i.e. in action itself.[60] Consequently since such beings are more noble and perfect by acting than by remaining inactive, their action must be a perfection of them both as beings and as potential agents.

From this it is clear precisely what perfection action superadds to the prime perfection of a being. It is an accidental inhering transitory act of an active potency giving to the being an extrinsically denominative title whereby it is referred to another[61] with a peculiarly proper type of reference, viz. causality by which it acquires dominion over the inception or becoming or being of an effect. It therefore adds the perfection of being as actual cause to the perfection it had as being and as potential cause.[62]

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[59] *C. G.* II, 9, Adhuc: "Actio quae non est substantia agentis inest ei sicut accidens subjecto."

[60] Cf. *C. G.* III, 70, Patet etiam: "(Deus) ex immensitate bonitatis ipsius . . . suam similitudinem rebus communicare voluit, non solum quantum ad hoc quod assent, sed etiam quantum ad hoc quod aliorum causae essent." (See also *ibid.* III, 69, Adhuc, Quod.) Cf. *S. T.* I, 25, 1, ob 2: "Actio (melior est) quam potentia activa. *Ibid.* 1m: "Oportet quod actus sit nobilior potentia."

[61] For "actio" is "actus ab agente in aliud". Cf. *In III Phy.* 4, Vivès, vol. XXII, pp. 383a, 394b.

[62] It seems that in addition to this passing and transitory perfection, action contributes moreover an abiding perfection to the agent. It is only on this supposition that one can account for the growth of habits.

In a manner analogously the same though eminently superior, the action of God in creating (and indeed in moving creatures to act) may be said to be a perfection of His Nature. Whereas however in creatures, actions are acquisitive of perfections that are lacking, in God, causal action is simply reflective of perfection possessed (since His action is His essence) and communicative of the same without diminution, "ad extra".

6. *Action—Proximate and Ultimate Source*

In the previous chapter brief mention was made of the fact that the Angelic Doctor, like Aristotle, postulated two principles of action, one proximate and one remote. Let us amplify this. In every action says St. Thomas, one must consider the supposit which acts and the virtue whereby it acts.[63] Properly speaking actions belong to and are predicated only of the supposit or individual substance. It is not the hand which strikes but man who strikes with his hand. It is not the intellect which thinks but man who thinks with his intellect. It is not the heat which causes heat, but the fire which heats by the form of heat.[64] The individual substance then is *what* acts. It is the *principium quod agit.* Nevertheless, with the sole exception of God whose action is His Being or Eessence and whose operation is substantial action, individual substances act by principles (sources) and virtues of action. The primary and remote source of action is the being's substantial form. Nothing acts except to the extent that it is in act.[65] And nothing is in act save by that which is

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How else explain proficiency in accomplishing, expedition in doing unless it be that the individual transient actions though terminative "ad extra" and "in passo" have contributed some permanent perfection, have formed in the agent a certain vestigial mould along which successive actions flow more smoothly. This appears fundamental to St. Thomas' whole doctrine of virtues and vices and operative habits.

[63] *S. T.* I, 36, 3, 1m: "In qualibet actione est duo considerare, sc. suppositum agens et virtutem qua agit."

[64] Cf. *S. T.* II-II, 58, 2c; III, 7m, 13c; *C. G.* II, 50, Adhuc; *In IV Sent.* 12, 1, 2c.

[65] *C. G.* I, 73, Amplius Quum: "Omne agens agit inquantum est actu. Cf. *S. T.* I, 76, 1c; *C. G.* I, 16, Item; II, 47 Amplius; II, 52, Item, Quum.

its form.[66] Consequently in innumerable places throughout his works St. Thomas says that the form (substantial) of a being is the principle *(quo)* of action.[67]

At this point it might be well to stress the strict *ligamen* that exists between being and action by reason of the form. To an extent this was accentuated in the aristotelian doctrine but it is accurately precised and explicitly expressed by St. Thomas. Not only does he affirm the fact that everything acts by and through its form but he insists on equating the totality of acting with the totality of being, so that action and actual causation is being dynamically related to another. Action belongs to being as such. As Franco Amerio has well expressed it, it is impossible to conceive a being which is not, by everything that it is, also action. Quoting St. Thomas he says: "The manner in which a being has its form is the manner in which it is an agent". (He might have added that the more perfectly an agent possesses the form by which it acts, the greater is its power of acting. The hotter a thing is so much the more it is able to heat in turn.[68]) So true is this equation between the form of a being and its act that to think of divine action in its purity, it is necessary to think of the being of God as pure Form.[69]

But though the substantial form is the principle of action, it cannot (apart from God) be its proximate and immediate source.[70]

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[66] *C. G.* II, 59, Amplius, Id: "Nihil enim agit nisi secundum quod est actu; actu autem non est aliquid nisi per id quod est forma ejus".

[67] Cf. *S. T.* I, 3, 2c; 42, 2c; 73, 1c; 76, 1c; *C. G.* II, 49, Item, Nihil; 92, Amplius; III, 58, Quia, etc.

[68] Cf. *S. T.* I, 25, 2c: "Quanto aliquod agens perfectius habet formam qua agit, tanto est major ejus potentia in agendo. Sicut quanto aliquid est magis calidum, tanto habet majorem potentiam ad calefaciendum."

[69] Franco Amerio, "La Formulazione del Principio di Causalita", *Rivista di Filosofia Neo-Scolastica,* vol. XV, Sept. 1937, p. 397: "Non è conceptibile un essere che non sia, per tutto quello che é, anche attività: 'secundum quod aliquid se habet ad formam sic se habet ad hoc quod sit agens' (*S. T.* I, 3, 2c). Tant' è vero che per pensare l'azione divina nella sua purezza è necessario pensare all' essere di Dio come pura forma. 'Quod igitur primum est et per se agens, oportet quod sit primo et per se forma.' (*ibid.*)"

[70] *S. T.* I, 77, 1, 4m: "Forma substantialis est primum actionis principium sed non proximum."

The reason for this is twofold. In the first place, since potency and act divide being and each genus of being, it is necessary that potency and act be referred to the same genus. If act *(primarily and per se)* is not of the genus of substance, the potency which is its correlative will not be of this genus. But operation (except in God) is an act of the genus, accident. Consequently the potency it immediately actuates must be of the same genus.[71]

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[71] *Ibid.* I, 77, 1c: "Cum potentia et actus dividant ens, et quodlibet genus entis, oportet quod ad idem genus referatur potentia et actus; et ideo, si actus non est in genere substantiae, potentia quae dicitur ad illum actum, non potest esse in genere substantiae. Operatio autem animae non est in genere substantiae sed in solo Deo operatio est ejus substantia. Unde Dei potentia, quae est operationis principium, est ipsa Dei essentia; quod non potest esse verum, neque in aliqua creatura . . . " Lest there be any doubt about the principle involved in this argumentation, viz, that potency and act are (and must be) referred to the same genus it must be understood that there is question only of potency which is *per se* primarily intended to be potency and act which is *per se* primarily intended to be act. ("Sermo hic est de potentia per se primo intento in ratione potentiae et de actu per se primo intento in ratione actus" (Cf. Cajetan, *Comm. in Summam Theol.* I, 54, 3c, n. XI). In the scale of beings ranging between pure act on the one hand and pure potency on the other there are beings that are an admixture of both. Nevertheless in each of these there can be discerned a predominant aspect. They are either *per se primarily* act (and secondarily, potency) or they are *per se primarily* potency (and secondarily, act). Regarding then only this primary aspect, the principle holds true that potency must be of the same genus as that act to which it is essentially ordained whether it be merely receptive or active in respect to it. The principle is not vitiated as Scotus supposes (Vid. *Comm. In II Sent.* d, 16, q. 1c) by the fact that the soul (an act in the genus of substance) is an active principle of accidents, viz. its potencies, nor by the fact that it is an immediately receptive principle of the accidental forms, intellect and will. In both of these cases, the soul and its potencies are taken only in their secondary aspect. The soul is *per se* primarily the "actus corporis physici organici", complementing the substantial potency of matter. Only secondarily and *per accidens* is it the active principle of its potencies, which moreover are not efficiently caused by the soul but are concreated with it and flow from it by a natural resultance (cf. *S. T.* I, 77, 7, 1m; 6, 3m; *In I Sent.* 3, 4, 2c etc.) Only secondarily moreover is it the matter (in the broad sense of the term) and therefore the receptive and subjective principle of intellect and

In the second place, the substantial form, *as form,* is essentially act; not indeed an act which is essentially ordained to a further act, but an act which is essentially the term of generation or production.[72] If now this substantial form whose essence is act were the proximate immediate principle of operation, it would always be acting[73] It not, it would belie its essential nature since at times (according to the supposition) it would be merely in potency to operation. Experience reveals just this, that the substantial form is not always acting, but is at times only in potency to operation. Consequently it cannot be the proximate principle of action, but only its remote principle.

The immediate source of action then, can only be the active qualities, potencies or virtues of the form. These, unlike the latter, are the perfect correlative of action because (a) they are *per se* primarily potencies which, in their definition and essence are ordained to a further act which is action and (b) they are predicamental accidents. Essentially then active potencies are nothing more than proximate principles of operation.[74] They

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will. Similarly with the potencies. *Per se* and *primarily* they are ordained to their own proper acts; if passive (as the external senses) they are simply receptive of these acts; if active (as the creative imagination and the intellectus agens) they are efficiently causative of them. Only in a secondary aspect do they function as acts or forms of the soul, the latter as it were having the *ratio* of a passive principle in that it sustains those things that inhere in it. For a full vindication of this thomistic principle and a refutation of Scotus' exception to it see especially Cajetan's *Commentaria* (Leonine edition, vol. V) in the place cited (*S. T.* I, 77, 1c) and the commentary on question 54, Article 3, n. XI.

[72] If beyond this it is potential to a further act, this is proper to it, *not* essentially *as form,* but only as *potency.* Considered as having such a potency it is called a first act that is ordained to the second act of operation. Cf. *loc. cit.*

[73] *Ibid.* I, 77, 1c: "Anima secundum suam essentiam est actus. Si ergo ipsa essentia animae esset immediatum operationis principium, semper habens animam, actu haberet opera vitae, sictu semper habens animam actu est vivum." The argument applies directly to the soul which is the substantial form of the body, but it is equally true of all substantial forms whose essence is an act.

[74] *S. T.* I, 25, 1c: "Potentia activa est principium agendi in aliud."

cannot however be conceived as acting independently of the substantial form.[75] As their being depends on the being of the substance so their action depends on the action of the substantial form.[76] It is for this reason that potencies which are predicamental accidents (though predicable properties) can be said to be the causes of substantial changes. They are subordinate instrumental causes of the new substance. The latter is effected not immediately by the substantial form of the agent but through the medium of active and passive qualities which act in virtue of the substantial form.[77]

7. *Action, Passion and Motion*

The aristotelian concept of causal action is as we have seen less extensive than that of St. Thomas. Whereas with the former, the production of being, connoted by action, always presupposed the existence of an object (being) on which the agent exercised its causality, with the latter, it was extended to embrace that causal action which requires no existing object in order to operate (though not denoting this exclusively). The former then was restricted in its denotation to such action as was attended by motion; and motion as is known is the actualisation of that which *already exists* in (subjective passive) potency as such, whether this be a potency to a new substantial form[78] under which prime

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Cf. *ibid.* I, 78, 4c: "Potentia . . . nihil aliud est quam proximum principium operationis."

[75] *Ibid.* I, 77, 1, 4m: Hoc ipsum quod forma accidentalis est actionis principium habet a forma substantiali. Cf. *ibid.* I, 45, 8, 2m; *In IV Sent.* 12, 1, 2, 2c.

[76] *S. T.* III, 77, 3, 2m: "Ita actio formae accidentalis dependet ab actione formae substantialis sicut esse accidentis dependet ab esse substantiae."

[77] *Ibid.* 3m: "Immutatio quae est ad formam substantialem non fit a forma substantiali immediate, sed mediantibus qualitatibus activis et passivis, quae agunt in virtute formae substantialis." Cf. *De Pot.* 3, 8, 13m.

[78] We say "new substantial form" because that which is receptive of such a form never exists without some substantial form. The existence of prime unactuated matter is inconceivable and impossible and for this

matter always lies or a new accidental form that come to "second matter" leaving it substantially unchanged. The latter however is broad enough to include both action with and action without motion. Nevertheless if we exclude action without motion, the thomistic theory of motion, action and passion is completely in accord with Arictotle. To set forth at length then Thomas' explanation of these terms and their interrelation would be needlessly to reiterate what Aristotle has already said on the matter.[79] Consequently we shall content ourselves at this point with a brief summary of the point stressed by the Angelic Doctor.

1. Motion is neither the potency of something existing in potency, nor the act of something existing in act, but properly the *act of something existing in potency:* "act" relative to a previous potency, "of something existing in potency" relative to an ulterior perfection or act.[80]
2. It is the act of and therefore takes place in the object acted upon and not in the mover or agent, for what exists in potency as such is the *mobile* and not the *movens.* The latter as such is in act.[81] As act of the *mobile,* it is called *passio.*
3. Nevertheless motion is at the same time the act of the agent or mover.[82] As such it is called "actio" [83] and takes place not in the agent but in the patient.[84]

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reason even beyond the power of God to realize. Cf. *Quodl.* III, 1; *S. T.* I, 66, 1c.

[79] Cf. *supra,* pp. 61-64.

[80] Cf. *In III Phy.* 2, Vivès, vol. XXII, p. 385 a-b: "(Motus) neque est potentia existentis in potentia, neque est actus existentis in actu, sed est actus (existentis) in potentia; ut per id, quod dicitur actus, designetcr ordo ejus ad anteriorem potentiam, et per id, quod dicitur in potentia existentis, designetur ordo ejus ad ulteriorem actum."

[81] Cf. *In III Phy.* 2, p. 390a: "Motus est actus mobilis, inquantum est mobile. . . . Quia enim motus est actus existentis in potentia inquantum hujusmodi; existens autem in potentia, inquantum hujusmodi, est mobile, non autem movens, quia movens inquantum hujusmodi est ens in actu". *In III Phy.* 2, 393b: "(Motus) dicitur . . . passio secundum quod est actus patientis." *In I Sent.,* 40, 1, 1, 1m: "Actio est recepta in eo quod fit per modum passionis secundum quod motus est in moto ut in subjecto."

[82] *In XI Met.* 9, n. 2310 (Cath. Ed.): "Motus sit motivi actus. Illud enim actus est alicujus quo fit actu. Sed motivum dicitur ex eo quod est

4. There are not two distinct motions of which one is the act of the agent, and the other, the act of the patient for
    a. either the two motions would be in two different subjects, one in the agent and one in the patient or
    b. they would be in the same subject; both being exclusively either in the agent or in the patient.

Each of these suppositions is impossible for: if (under the first) there were motion in the agent it would follow that the mover *qua* mover is moved, since in whatever there is motion, that is moved.[85] But it is contrary to the notion of an agent as such that it be moved. That it should suffer the action of another in order to pass from a state of inactivity to action is not essential to action as such, but merely betokens a defect of finite efficiency. Similarly that it should suffer the resistant action of the patient is again not proper to it as agent, but only as a imperfect agent with an admixture of passive potentiality. In both these instances it suffers and is itself moved not as agent but as patient.[86] Consequently as agent it is not moved, as it would have to be if motion were in it as agent. Hence the motion which is the act of the agent (action) must be in that which is acted upon.[87] This fact immediately discloses

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potens movere; movens autem in operari, idest in eo quod est esse actu; et ita, cum movens dicatur propter motum, motus erit actus motivi."

[83] *In III Phy.* 4, Vivès, vol. XXII, p. 393b: "Motus . . . dicitur actio secundum quod est actus agentis."

[84] *In III De Anima,* 2, n. 592 (Pirotta Ed.): "Actus motivi et activi *fit* in patiente, et non in agente et movente."

[85] *In III Phy.* 4, p. 392b: "In quocumque . . . sit motus, illud moveatur." *In III De Anima,* 2, n. 592.

[86] For the resistant action of the patient on all corporeal movers see the following section.

[87] At first blush this would appear contradictory to the many places in St. Thomas' works where it is said that action is in the agent (cf. *In I Sent.,* 40, 1, 1, 1m; *In II Sent.,* 40, 1, 4, 1m; *De Pot.* 7, 9, 7m; *ibid.,* 7, 10, 1m; *C. G.* II, 9, etc.). The two apparently opposed views of action are expressed in one succint sentence in the *De Potentia* (8, 2c): "Actio non significatur ut in agente sed ut ab agente et tamen constat actionem esse in agente." A possible solution of this seeming antithesis rests in the twofold aspect of action. As a predicamental accident it has something in common with all other accidents and something which distinguishes it from these. Now action as action (and therefore different

the impossibility of the first alternative of the second supposition (b) viz. that there are two motions, both of which are in the agent. The second alternative viz. that the act of the agent and the act of the patient are in the latter as two distinct motions is likewise untenable. For this would mean that the same subject, i. e. the being acted upon, is moved to the same term, the final effect, by two different motions, which on the face of it, is an absurd proposition.[88]

5. Consequently it is one and the same motion which is the act of the agent and the act of the patient. It is the act of the mover to the extent that the latter does something. It is the act of the thing moved to the extent that it suffers something. What the agent causes by acting is precisely what the patients receives by suffering. What proceeds from the mover as from an efficient cause is (materially) the same as what is in the thing moved as in a patient or receptor.[89]

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from other predicamental accidents) is signified as being *from the agent* and *taking place in the patient;* as an accident however (and therefore having something in common with all other accidents) it is signified as being in the agent (*De Pot.* 7, 9, 7m). It is *in* the patient terminatively and effectively. It is *in* the agent principally (i.e. as in a *principium a quo*) emanatively and efficiently. The difficulty is dissipated if it be noted: 1) that action and efficient causality does not take place as Democritus and others supposed by an efflux of atoms from a corporeal agent nor by a transfer of accidents (even of actions) from the agent to the patient which in Thomas' opinion is perfectly ridiculous (cf. *C. G.* III, 69, "Ridiculum autem est dicere" etc.) but by a reduction of the patient from potency to act made possible by the agent "secundum quod est in actu" (cf. *loc. cit.;* In II Sent. 1, 1, 4, 5m; *S. T.* I, 115, 1, 5m); 2) that action cannot be cut adrift from the agent, that if action is said to be *in* the patient it is because the agent in a sense is itself *in* the patient analagously to the manner in which God himself is in all things caused by Him, i.e. "per modum causae agentis." (*S. T.* I, 8, 3c). At the moment of action (and only at this moment is the agent an actual efficient cause) the agent is together with *(simul)* and in contact with the patient. This togetherness (an accidental union of the two) lasts as long as the action itself. At this dynamic moment or state (when it perdures) it is not repugnant to say that the action of the agent (which is a perfection of and, as an accident, inheres in the same) is *in* (i.e. takes place in) the patient.

[88] Cf. *In III Phy.* 4, p. 392 a-b, for the refutation of both of these suppositions.

6. There is no incongruence in the fact that motion, viewed as the act of the mover is in the being moved. Inconvenience would follow only if the act of A (agent) were in B (patient) in the same manner in which it is the act of A.[90] But we have seen that the act (action) of the agent is in the patient as efficiently causative of the latter's perfection, whereas it is in the agent itself as formally causative of its own accidental perfection.[91]
7. Although action and passion are one and the same motion it does not follow that action is passion. Action implies that whence motion is in the thing moved; passion however implies that which is from another.[92] Hence it is clear that the two are distinct.[93]

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[89] *Ibid.* 391b: "Idem est actus moventis et moti: moventis enim dicitur inquantum aliquid agit, moti autem inquantum patitur; sed idem est quod movens agendo causat, et quod motum patiendo recipit. . . . Idem enim est quod est a movente, ut a causa agente, et quod est in moto ut in patiente et recipiente."

[90] *Ibid.* 393a: " . . . non est inconveniens actum unius esse in altero, quia doctio est actio docentis, ab eo tamen in alterum tendens continue, et sine aliqua interruptione; unde idem actus est hujus, idest agentis, ut a quo: et tamen est in patiente, ut receptus in eo. *Esset inconveniens autem si actus unius, eo modo quo est actus ejus, esset in alio.*"

[91] *Supra,* pp. 213-215.

[92] *S. T.* I, 28, 3, 1m: "Licet actio sit idem motui, similiter et passio, non tamen sequitur quod actio et passio sunt idem; quia in actione importatur respectus, ut a quo est motus in mobili; in passione vero ut qui est ab alio."

[93] May we say that this distinction is real or only logical? At first sight it would appear as not altogether clear whether in St. Thomas' mind this distinction is only one of reason (logical) or whether it is real. In his commentary on the *Physics (loc. cit.)* it would appear that the distinction is only mental for he says: "Actio et passio differunt, propter hoc, quod has diversas rationes in sua significatione includunt." (393b-394a); and again " . . . actio et passio sint unus motus, et non differunt nisi secundum rationem." (394a). Opposed to these seems to be the statement: (*In II Sent.* 40, 1, 4, 1m) "Cum actio sit in agente et passio in patiente, non potest esse idem numero accidens quod est actio et quod est passio, cum unum accidens non possit esse in diversis subjectis". This latter evidently calls for a real distinction. John of St. Thomas resolves the difficulty by distinguishing two formalities in actio, one which is in the agent as in a subject *(actus secundus),* really distinct

8. As distinct, action and passion constitute two distinct predicaments. According as the efficient cause is designated by the effect we have the predicament of action. According, however, as something is designated by its efficient cause, as being from it, we have the predicament of passion, for to suffer is nothing else than to receive something from an efficient cause.[94]

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from *passio,* and one which is identified with motion, conceptually distinct from *passio.* (Cf. *Cursus Phil. Thom.* vol. II, Phil. Natur., p. 275-276). We think it not necessary to resort to so questionable an expedient in order to eliminate the difficulty, for as a matter of fact the texts cited are perfectly compatible as they stand, if properly understood. When St. Thomas speaks of things as being different "secundum rationem", the phrase does not, as is generally supposed, necessarily mean a logical as opposed to a real distinction *(secundum rem).* The word "ratio" is frequently used in the works of the Angelic Doctor as synonomous with essence or nature (Cf. Ludwig Schütz, *Thomas-Lexikon,* Paderborn, Schöningh, 1895, under word *ratio*). *Ratio* then may mean the essence viewed psychologically, i.e. as grasped by the intellect or reason *(ratio).* But what is grasped primarily are *real* essences (though we say too that *entia rationis,* i.e. purely logical beings, have essences). One most obvious example will be sufficient to illustrate St. Thomas' use of the term in the sense of *real* essence. It is generally conceded by all that St. Thomas, rightly or wrongly, posits a *real distinction* (metaphysical though not physical) between the faculties of the soul themselves. As a matter of fact this is one of the most forceful arguments used by the Master in proving the real distinction that exists between the soul and its potencies (cf. *De Spirit. Great.* 11c; see also Charles A. Hart, *The Thomistic Concept of Mental Faculty,* Cath. Univ. Press, 1930, pp. 47-48). Now in what terms does St. Thomas speak of this real distinction? Precisely in the same terms in which he speaks of the distinction between action and passion. "Nothing prevents a thing from being the same (as another) in subject, though different according to *ratio.* And this is true of the diverse potencies of the soul." ("Nihil prohibet id quod est subjecto idem, esse *diversum secundum rationem,* et ideo potest ad diversas potentias animae pertinere", *S. T.* I, 77, 3, 3m). If therefore the real distinction between the faculties themselves can be characterized as a distinction *secundum rationem,* in parallel fashion we can say that action and passion are *really* distinct. They are materially one, they convene in one and the same motion; nevertheless they are formally different, they are really distinct, they are essentially distinct, they are diverse *secundum rationem.*

[94] Cf. *In III Phy.* 4, p. 394b: 'Secundum quod aliquid denominatur a

8. *Action and Reaction*[95]

Franco Amerio has well observed that the theory of action and reaction though of singular importance for an exact comprehension of movement and mutation has not been given the emphasis due it even in the more exhaustive manuals of scholastic philosophy.[96] In the following, attempt shall be made to remedy this defect and to justify the assertion as to its importance by noting, in addition to the apposite observations of Aquinas on the matter (so similar to Aristotle's own) the metaphysical basis of the theory (more accentuated in the writings of St. Thomas than in the Stagirite's).

It is fundamental to the thomistic concept of action and passion that each thing acts according as it is in act and suffers action to the extent that it is in (passive) potency.[97] In this basic

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causa agente, est praedicamentum passionis nam pati nil est aliud quam suscipere aliquid ab agente. Secundum autem quod e contra denominatur causa agens ab effectu, est praedicamentum actionis. Nam actio est actus ab agente in aliud."

[95] The two main sources whence the aristotelian theory of action and reaction have been drawn is, as we have seen, the *De Generatione et Corruptione* (I, 7, 323a-324b) and the *De Generatione Animalium* (IV, 3, 768b, 16 ff). St. Thomas has, unfortunately, made no commentary on the latter, and of the former, he lived long enough only to comment of the first five chapters of book one *(lectio* 1 *to* 17 *inclusive),* the remainder of the commentary being concluded by Thomas of Sutton (Cf. Mandonnet and Destrey, *Bibliographie Thomiste,* Kain, 1921); Grabmann, *Die Werke des hl. Thomas von Aquin, Beitr. z. Gesch. d. Phil. u. Theol. d. Mittelalt.* Bd. XXII, 1-2). Nevertheless comparing the doctrine contained in Thomas of Sutton's commentary with other passages in St. Thomas' works wherein obiter dicta are made to the problem at hand, it is possible to reconstruct most probably Aquinas' opinion. We shall see that it coincides quite closely with that of Aristotle.

[96] "Il Principio di Causalita in S. Tomaso", *Rivista di Filosofia Neo-Scolastica,* vol. XVI, 1938, p. 51: "Questa teoria dell' azione e reazione è di singolar peso nel l'essatta comprensione del movimento e della mutazione, e non mi pare le si atribuisca la dovuta importanza anche nei trattati scolastici più esaurienti."

[97] *S. T.* I, 25, 1, 1m: "Unumquodque agit secundum est in actu . . . patitur secundum quod est in potentia." Cf. *De Pot.* 1, 1c; 2c; *C. G.* II, 7, Amplius, etc.

metaphysical law is contained the germ of the theory of action and reaction. For, with the exception of God who is pure act there is no individual substance that is not a composite of act and potency. This being so, there is no such composite being which is so wholely in act that it cannot suffer action, nor is there any such being so wholly in potency that it cannot, according to its own form, act under proper circumstances. Consequently in every individual substantial composite, from the highest (angelic nature) to the lowest (corporeal substances) there is both an active (principium agendi in aliud) and a passive potency (principium patiendi ab alio). Each being is more or less active or passive according to the place it occupies in the hierarchy of beings, or rather each is higher or lower in the scale of beings according to the measure in which its activity predominates over its passivity. The index of this predominance of activity is obviously the scope of beings over which its influence ranges, for action reveals the virtue or power of a being and this in turn its nature. Hence a being which produces greater and more numerous effects is more perfect than one whose range of activity is less extensive.[98]

Now there is one universal limit to the activity of every nature. It is the nature itself of the being.[99] In other words a being cannot act by its own proper virtue alone in a manner superior to its nature.[100] This would be to destroy the proportion that must exist between the agent and its effect and would make an effect more noble than its adequate and proper cause, an obvious contradiction.[101] But if a being's activity is limited by its nature, no less is its passivity, i.e. its passive potentiality. It can suffer only that which is in accord with its nature. Insisting than on this dual limitation of action and passion by a being's nature, emphasizing too the fact that there is no composite substance which is not a mixture of act and potency one can formulate certain general principles of a being's action and passion which will amplify the metaphysical basis for the theory of action and reaction.

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[98] Cf. *C. G.* II, 6, Adhuc, Quanto: "Quanto alicujus actionis principium est perfectius. tanto actionem suam potest in plura extendere et magis remota. See also *S. T.* I, 65, 3c.

[99] The nature in turn is limited, according to St. Thomas by two things: the efficient cause or the producer of the being, and the potency into which the form of the being is received. Cf. *De Pot.* I, 2c; *S. T.* I, 25, 2c.

[100] *C. G.* III, 84: "Nihil agit ultra suam speciem". Cf. *S. T.* I-II, 112, 1c; III, 79, 2, 3; *In II Sent.* 13, 1, 3, ob. 7; *C. G.* II, 49, Item. We say "by its own proper virtue alone" since at times a being may act in a manner superior to its nature and produce an effect more noble than itself. At such times however it acts as an instrument of a principal agent and therefore by a superior virtue.

One substantial composite to the extent that it is in act may act upon another in the same species and likewise on beings of a lower order in the measure that these are proximately potential to an act over which the first has competency. The same nature however, in the measure that it is passively potential, may also suffer action from beings of its own level of perfection (when, for instance, it lacks an accidental perfection which these beings of its own substsantial perfection possess) and, *a fortiori,* from beings of a higher level. It cannot, however, be the recipient of the action of beings of a lower order when these act by their own proper virtue[102] unless a part of its nature (the passively potential part) is such that it is within the scope of activity of these inferior natures. To be more concrete, within the hierarchy of created natures it is possible to envision and distinguish the action of various kinds of beings on others. Thus there is the action of:

1. a purely spiritual nature (angel) upon another purely spiritual nature;
2. a purely spiritual nature upon a spiritual-material nature (man);
3. a purely spiritual nature on a purely material nature;
4. a spiritual-material nature upon a like nature;
5. a spiritual-material nature upon a purely material nature;
6. a purely material nature upon a spiritual-material nature;
7. a purely material nature upon a purely material nature.

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[101] *S. T.* 95, 1c: "Non . . . potest esse quod effectus sit potior quam causa". Cf. *Ibid.* 66, 1c.

[102] For otherwise as we have seen, they would exceed the perfection of their nature.

In the light of the principles already set forth let us analyze these kinds of being and see wherein each may act and suffer action. Grouping the first three together we have instances of the action of an angelic nature upon another angel, a human being and a purely material composite or body, respectively. Thus a superior angelic nature may illumine an angel of a lower order or species;[103] or it may strengthen and enlighten the human mind or its sensitive cognitive powers;[104] finally it may move locally a corporeal substance as do the separate spiritual beings that move the celestial bodies[105] or it may even change substantially or accidentially other bodies through the medium of local motion and be means of active forces in nature which are at its command.[106] In all these cases the angelic nature moves solely by a virtual non-mutual contact, that is to say it touches that which it moves only by its active virtue, and since it is the active virtue of an incorporeal being, a virtue, moreover, that it exercised upon beings of an inferior rank, it is not touched in turn. The contact, therefore, is non-reciprocal. Consequently an angel cannot suffer any reciprocal action from those beings it touches.

Passing now to the fourth and fifth cases, we have instances wherein one spiritual-material being acts upon another of like character or upon a purely material nature, respectively. In the first instance countless cases present themselves of which we note but a few to bring out the principle involved. Thus the teacher may instruct the pupil, the counsellor may advise, the physician may cure the bodily ills of a sick man through the administration of medicatives, the surgeon may operate, the chiropractor may manipulate bones, muscles, tendons of another to restore normal functioning of bodily organs, the gymnasts may wrestle or box. In these we observe a successive regression from activity of a primarily spiritual nature to that of a primarily physical or corporeal nature, with a corresponding increase in the possibility of suffering action in return. In the case of the teacher and of the counsellor the action remains primarily on a spiritual plane and the passion of the pupil and the client respectively remains on the same plane. The contact is therefore, primarily spiritual and consequently virtual and non-mutual. As such, the agent remains unaffected by his action and removed from the possibility of reaction. Since, however, in both cases the agents are also of a corporeal nature, they can and do suffer to the extent that corporeal organs must be used. This, however, is accidental to the action as such. Similarly, though progressively less so with the physician,[107] the surgeon and the chiropractor. To the extent that the *art* of all three is resident in an immaterial faculty (the intellect), they act and cannot suffer reaction. This *act,* however, is exercised through corporeal organs which, being material, are not purely active. Consequently they may suffer the resistant action of the patient in the measure of their bodily contact with the same and to the extent of the latter's active potentiality—the surgeon obviously more than the physician who diagnoses and prescribes, and the chiropractor more than both. With the gymnasts wrestling and boxing there is a greater immersion of the art in the bodily nature and a corresponding intension in the bodily contact with a resultant greater interaction. The action of the one becomes as it were the detonating occasion of the reaction of the other, each acting to the extent that he is in act, suffering action in the measure that his body is passively potential to the action of the other. From these instances there emerges the principle that *action and reaction take place only between corporeal substances that are in immediate and mutual contact.* This is verified in the case where a spiritual-material nature acts upon a purely material nature, when, for instance man fashions a statue, makes a bench, lifts and throws a stone. These bodies, recipients of the action of the agent, react in the measure that they are in act and to the extent that the agent (in the corporeal part of his nature) is in potency.

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[103] According to the thomistic doctrine there are no two angels of the same species since they are not composed of matter and form (cf. *S. T.* I, 50, 4c; *De Spirit, Great.* un. 7c). Each is in a species by itself and each varies in nobility according to the greater or less degree in which it approximates the pure actuality of God. For the illumination of an inferior angel by a superior angel see *S. T.* I, 54, 4, 2m.

[104] Cf. *De Malo,* 16, 12c.

[105] *Ibid.* 16, 10c; *ibid.* 16, 9, 7m.

[106] *S. T.* I, 65, 4c: "*De Malo,* 16, 9c and 4m, 9m, 11m. In the latter reference, St. Thomas is speaking primarily of the powers of the demons or evil spirits, though he makes mention of the activities of spiritual natures in general to bear out his remarks.

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[107] It is well to note here an error that might mistakenly be attributed to St. Thomas. The translator of the text of Aristotle's *De Generatione et Corruptione* has literally rendered the words ἡ ἰατρική . . . ποιοῦσα ὑγίειαν (*ibid.* I, 7, 324a, 35) by the words "medicativa . . . faciens sanitatem" (*In I De Gen. et Corr.* 20, Vivès, vol. XXIII, p. 322a, text). The commentator, Thomas of Sutton, failing to understand that ἰατρική is a substantive adjective with the word τέχνη understood, has erroneously interpreted "medicativa" as "medicina" (1. c. 322b, comm.) and goes on to say that the medicine which induces health in no way suffers from its action on the patient—an opinion that certainly does not reflect Aristotle's mind and should not be imputed to St. Thomas. It is not the medicine which is unaffected by its action on the patient, but rather the *medical art* (ἡ ἰατρικὴ τέχνη).

Coming to the sixth and seventh cases, we have instances where a purely material nature acts upon a spiritual-material nature or upon a purely material nature, respectively. As to the first, a purely corporeal substance may act upon man. From a principle already enunciated viz. that a being cannot act in a manner superior to its nature, it will be readily seen that such a substance cannot directly act upon the spiritual part of man's nature by its own proper virtue. It can, however, act upon the material element in man's nature, upon his body and bodily organs since such action is properly proportioned to it. When this action is mediate, when, for instance the colored object affects the eye, or sound, the ear, there can be no question of the organ's reaction, unless possibly it be on the medium by which the action of the object is conveyed to the sensory receptive faculty. When, however, the action is immediate as in all instances where the senses of touch and taste are concerned, the body touched will also touch the other; contact will be mutual and reaction, a reality. The same principle holds true in the final case where a purely material substance acts upon another material substance, with, however, one exception, noted by Aristotle and affirmed by St. Thomas. This exception is the instance where the action of a heavenly body is concerned. Subscribing to the aristotelian opinion that such bodies are composed of an impassible stuff, unlike that of other corporeal substances, a stuff whose entire passive potentiality is so exhausted by its form that there remains in it no further potentiality to another form,[108] St. Thomas asserted that in the action of these celestial bodies mutual contact is not realized and reaction is impossible.[109]

In summary of the thomistic position on the problem of reaction we may say then that action and reaction obtains between two corporeal substances of a like matter when these are in immediate and mutual contact. The importance of this theory for a proper understanding of motion, not only in the philosophy of nature but also in the physical sciences can scarcely be exaggerated. By it we see the possibility that one and the same being may be an effect and a cause, not to be sure from the same point of view but purely contemporaneously. We see, therefore, the necessity of distinguishing the effect of the agent from the effect of the patient insofar as it is active. By action, the patient is modified according to the nature of the agent's active powers. By reaction, the patient acts according to its own particular nature and to the extent that it is in act. Taking into account this reciprocal action of the patient one may be guided in the solution of many difficulties such, for example, as the fact that an effect at times seems superior to what is thought to be the cause. The action of an external agent, A, may, in producing its own effect in the passive potency of the patient B, determine or stimulate the act of the latter's active potency which, being qualitatively different from the potency of A produces in turn the effect which appears superior to the nature of A which was first putatively taken to be the cause. It is clear upon analysis then that there is not merely one cause at work but two and the effect under investigation may more properly be attributed to the second than to the first.[110] Beyond this we need not pursue the application of the theory of action and reaction. Sufficient has been said it is hoped to suggest how fecund of further development in this aristotelian and thomistic doctrine and how important it is in any systematic view of nature.

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[108] Cf. *C. G.* II, 30, Uno quidem modo; *ibid.* III, 20, Rursus Non; *S. T.* I, 70, 3, 2m.

[109] Cf. *In III Phy.* 4, Vivès, vol. XXII, p. 390b: In the light of the findings of astrophysics, the view of Aristotle and Aquinas that the heavenly bodies are composed of matter different from that of earth is completely discredited. Spectrographic analysis definitely reveals the similarity of the material composition of both. The error, however, is one of physical fact and not of metaphysical theory, since both Aristotle and Aquinas maintained the reality of action and reaction between bodies composed of a generically similar matter.

9. *Conditions of Efficiency*

The radical similarity between Aristotle and St. Thomas in their views on the conditions required for efficient action justifies in the present instance only a cursory sketch of the utmost brevity of the salient features of the latter's position. With Aristotle he insisted on the necessity of

(1) the previous proximate potentiality of the agent and patient, passive on the part of the subject acted upon and active in the case of the agent[111]

(2) antecedent dissimilarity or contrariety between the form in the agent, the likeness of which is to be communicated, and the form in the receiving subject.[112]

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[110] Cf. *C. G.* III, 69. Non oportet etiam. See also Franco Amerio, "Il Principio di Causalità in S. Tomaso", *Riv. di Fil. Neo-Scol.* vol. XVI, 1938, pp. 51-52.

[111] This is essential to his theory of potency and act, matter and form. A subject can receive the perfection of only that act or form to which it is proximately disposed; and when proximately disposed, it can receive it only from that which is similarly proximately capable of communicating this perfection. Thus, extensive though the powers of the angelic natures and the heavenly bodies may be, they can move corporeal substances to new forms only through the medium of inferior causes more immediately adequate and proportioned to the beings to be acted upon (cf. *De Malo*, 16, 9c and 4m). These dispositions have already been touched upon to some extent above. See pp. 183-184.

[112] A being acts upon another not by that which it possesses in common with another but by that whereby it is distinguished from it, since if two beings were perfectly alike there is no reason why one should act more than the other (cf. *De Verit.* 5, 9, 5m; *In I De Gen. et Corr.* 19,

(3) contact, either physical and immediate or virtual and mediate, between agent and patient[113]

(4) unimpeded action, that is to say, absence of hindrance or obstacle.[114]

Of these no further explanation need here be given save on the question of contact, for it is this condition which has most been called into doubt by certain physical hypotheses of our modern era and has induced some Neo-Scholastic writers to retrench from their former position. The trend toward regarding the insistence upon contact as a necessary condition of causal

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Vivès, vol. XXIII, p. 320b). Moreover since every agent acts only in a manner similar to itself (cf. *S. T.* I, 3, 2, ob. 2; ibid. 19, 2c; 41, 5c; 11 , 1c; *C. G.* II, 46, etc., etc.), it can only communicate this likeness to something anteriorly dissimilar. Cf. Theodore de Régnon, *La Métaphysique des Causes;* Paris, Victor Retaux, 2nd edit., 1906, p. 150.

[113] This follows as a natural corollary from reflection on St. Thomas' concept of action, passion and motion. There is no causal action unless the agent somehow is present to the patient either by an immediateness of its supposit *(immediatione suppositi)* as in corporeal contiguity, or immediateness of virtue *(immediatione virtutis)* as when the supposit is at a distance. For motion, as we have seen is one and the same act of the agent and of the patient. The action of the agent (which is its accident) takes place in the patient as does the motion itself and the passion. If now the action could take place at a distance from the agent (i.e. separated from it by empty space) it would mean that the action would be separated from that of which it is an accident. But action cannot be separated from its proximate principle (the virtue whence it arises), not this, in turn, from its remote principle (the supposit of which it is a property). If both the virtue and the supposit are distant from an object there can then be neither action nor causal connection with that object unless there intervenes a medium which itself is capable of receiving and communicating the action of the supposit. Hence "actio in distans" is possible but only on the supposition of an apt medium, *not,* however, on the supposition of *no* medium (so-called vacuum or empty space) or of an inept medium (which would constitute an obstacle to causal action). For St. Thomas' affirmation that efficient action takes place only under contact see the following: *In VII Phy.* 3; *In I De Gen. et Corr.* 18 and 23; *C. G.* III, 68; *De Pot.* 3, 9; *In II Sent.* 15, 1, 2, 6m; *In IV Sent.* 49, 2, 3, 6m; *In I Sent.* 37, 1, 1c, etc., *In ibid.* 7, 10, 1m.

[114] Cf. *In VIII Phy.* 8, Vivès, XXIII, p. 649b, Manifestat autem; p. 650a; *De Malo,* 2, 11c.

action and the "dogmatic denial of action-at-a-distance" as the "survival of the ancient anthropomorphic explanation of natural phenomena" is typified by a philosopher-physicist like Schuster, friend of Maxwell, Helmholtz and Kelvin. In an address delivered at the Calcutta University in India,[115] he says in part that the denial of action-at-a-distance, i.e. action between two bodies not connected by any medium which transmits the force of the agent, is a strong instinctive feeling, a heritage and article of faith of the "push and pull" theory of force, a fundamental instinct no different from the naïve faith which placed the sun in a chariot drawn by horses in order to explain its motion across the heavens. He continues by saying that were our senses sufficiently acute we could distinguish by sight the separate molecules of a body and "we should probably see no contact anywhere." One might question at this point the conclusion that Schuster has drawn from physical findings. Even granting the existence of interstitial space between the molecules of a body, one wonders whether one would be justified in concluding that these are *empty spaces* with no matter or medium in them; one wonders whether one "should probably see no contact anywhere"; one wonders what keeps the molecules of a body together if nothing binds or connects them. Nevertheless it is these meager findings plus his own speculations which make Schuster so "anxious" that we realize "how weak are the grounds on which we deny on principle, action at a distance."[116]

Certain scholastic scientists like Boscovitch, while not making such a travesty of past thought have felt forced to admit the reality of action at a distance in the accepted sense of this phrase..[117] Others more philosophically inclined while not admitting the reality of this hypothesis, and in fact affirming its impossibility according to physical laws, nevertheless urge the point of view that no arguments can be adduced of sufficient validity to prove that it is metaphysically impossible and inconceivable.[118]

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[115] A. Schuster, *The Progress of Physics during Thirty-Three Years* (1875-1908), Cambridge, 1911, pp. 35 ff.

[116] Apparently by "principle" we are to understand this unreasoned and primitive instinct which leads us to believe that contact is necessary.

[117] R. J. Boscovitch, *A Theory of Natural Philosophy,* Chicago, 1922, Latin-English translation by J. M. Child, pp. 36 ff.

At this point we simply wish to stress the fact that for St. Thomas, action-at-a-distance, without intervening medium, is not only physically but also metaphysically impossible, and the conviction with which this is held is not the result of an unfounded and primitive instinct nor an anthropomorphic view of nature but rather of a reasoned persuasion based on an analysis of motion, action, and passion.

Obviously the Angelic Doctor is speaking of metaphysical impossibility and not merely of physical impossibility when he says: "No agent, no matter how great its virtue or power can act on any distant object except through a medium."[119] If this signifies anything at all, it means that not even God Himself, than whom there is none more powerful, could influence a creature at a distance from Him (in the supposition, *per impossibile,* that anything could be distant from Him), if there were no intervening medium. And if the omnipotent God (on the same impossible supposition) could not do this, the reason can only be that it is metaphysically repugnant, intrinsically impossible, for this alone is outside the power of God Himself to effect.

Such a view is certainly not a sheer instinct or anthropomorphism but a position forced upon St. Thomas by an analysis of the nature of movement, action and passion. If the motion initiated by the agent as a *terminus a quo* and received in the patient as in a *terminus ad quem* must be one and the same continuous motion, if agent and subject are united in this one continuous motion, if action, passion and motion are entitatively and materially one and the same, then the hypothesis of a body acting upon another separated by empty space is absolutely impossible.[120]

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[118] D. Nys, *Cosmologie,* Louvain, Institut Supérieur de Philosophie, 2nd edit., 1906, pp. 583-586. P. Coffey, *Ontology,* New York, Peter Smith, 1938, p. 395. Hugon, *Cursus Philosophiae Thomisticae,* vol. VI, pp. 142 ff. R. P. Phillips, *Modern Thomistic Philosophy,* London, Burns, Oates & Washburne, Ltd., vol. I, pp. 111-116. Gerard Esser, *Cosmologia,* Techny, Mission of St. Mary, 1939, p. 120.

[119] *S. T.* I, 8, 1, 3m: "Nullius agentis, quantumcumque virtuosi, actio procedit ad aliquid distans, nisi inquantum in illud per medium agit."

Summary and Comparison with Aristotle

The present chapter reveals once more the striking similarity between Aristotle and St. Thomas in the main lines of their causal theory. Substantial agreement is found in the designation of action as the peculiar "ratio" of efficient cause, in the emphasis upon faculty and form as proximate and remote principles of action respectively, in the theory of action, passion and motion, action and reaction and in the conditions required for causal action. With St. Thomas however we have seen that:

1. A deeper plumbing of the widened concept of action as the causality of efficient cause, and its clear demarcation from improper or formal action have served to reveal the advance made by St. Thomas over the Stagirite.

2. The causality of efficient cause is the actuality of an active potency that is productive of a term which need not be extrinsic to the agent.

3. By further precision of this concept it is clear that that formality which constitutes action as the specificative of efficiency in act consists neither in the relation of the cause to the effect, nor in the dependence of the effect viewed passively, but rather as the becoming viewed actively, i.e. as coming *from* a being and designating it as cause in act.

4. Action which makes an efficient cause in act is really an accidental formal cause and therefore a perfection of the agent itself, even though the action takes place in and is (efficiently)

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[120] For a further and more extensive development of this argument see the splendid treatment of Thomas Harper in his *Metaphysics of the Schools,* vol. III, pp. 279, 283. Besides this and other *a priori* arguments, the author has massed a group of *a posteriori* arguments drawn from common sense, the experience and observation of different types of motion, and modern physical science with which he is quite familiar (*ibid.* pp. 287-352). See also Alfred F. Kurtin, *"Actio in Distans" in the Philosophy of St. Thomas Aquinas,* unpublished Master of Arts Dissertation, 1936, Catholic University Library.

perfective of the subject acted upon. In a sense it is the final subjective perfection of the being and its active potency superadding the perfection of causality to that of being.

5. There has been a further enriching of the equation that obtains between being and action by reason of the form.

6. A full explanation has been given for the opinion that, apart from God, no substantial form can be the proximate source of action.

7. The metaphysical basis for the theory of reaction has been accentuated.

8. In the consideration of the conditions of efficiency stress has been placed upon contact and the metaphysical impossibility of "actio-in-distans".

CHAPTER XI

EFFICIENCY IN GOD AND IN CREATURES

I. PRELIMINARY REMARKS

Aristotle, we have seen, with the realism characteristic of him looked upon the world and viewed therein a hierarchy of dynamic beings from corporeal substances up to the immaterial beings that rule the stars. All of these he affirmed were efficient causes which, in the last analysis, were moved by the supreme unique absolutely unmoved Prime Mover. The latter, we have further seen, moves all else not merely as final cause but as efficient moving cause.[1] This interpretation of reality which, with its insistence on efficiency, bound earth to heaven and all to God, was one to which St. Thomas was most drawn. To him it was the best that the philosophy of the ages could offer in the way of satisfactory solution to the elusive problems which challenged man's intellectual curiosity. It was not without its defects. These were both of a philosophical and a purely scientific character. The former kind, St. Thomas continually sought to correct and perfect. The latter remained unseen, or if recognized, unattended to. The fifteen centuries that intervened between Thomas and Aristotle had brought little changes in the accepted world outlook and physical theories of the latter's own day.[2] In St. Thomas therefore one comes across the same theory of the elements, the same geocentricism, the same hypotheses about the stars and their movements, etc., that are met with in Aristotle's works.[3] One is not surprised then to find in St. Thomas, as in Aristotle, occasional false explanations of certain kinds of motion or the assignment of a wrong cause to an event, which errors, in explanation or fact, seem fantastic today. However, as with Aristotle, so with St. Thomas we maintain that the mistaken attribution of a kind of efficiency to beings which in the light of scientific investigation has been denied them,[4] in no way militates against the existence of efficiency

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[1] *Supra*, pp. 89-97.

[2] To the twentieth century mind this is somewhat of a scandal. Steeped in the material culture of our time, smugly complacent of the tremendous and revolutionary strides in the scientific world, of the upward surges in the realms of mechanics, chemistry, physics, electricity and medicine, it regards with polite but mystified incomprehension or open ridicule the centuries-long retardation of the physical sciences. It is inclined to attribute this backwardness to the intellectual inferiority of the past. Nothing could be farther from the truth. To the unbiased philosopher of history the greatness of the past is generally recognized. "Erant gigantes in illis diebus." The men of other days, among whom stood intellectual giants rarely equalled and never excelled, were simply preoccupied with interests of another kind, philosophy, law, government, the

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arts, and—if literature is any criterion—religion, more than anything else. This is true, not only in Christianity's Europe with its otherworld aspect, but also in Moslem's Asia and Africa, with its scimitar-dissemination of the Koran's word. No explanation however of the retardation of the physical sciences is complete without a recognition of the life and death struggle that was Europe's after the fall of the Roman Empire when the pall of the barbarian invasion hung over the continent. Beleaguered thus by hordes, her civilization threatened with devastation and extinction, all forces were thrown into the breech to salvage world culture and civilize its conquerors. This was chiefly the work of the Church. When the danger was past, there was need of recapturing the thought of the old Greco-Roman culture, and to this task new forces were bent. It is not surprising then that during all this time little expression was given to what we understand by the scientific spirit.

[3] St. Thomas, however, was not so unswervingly attached to the Ptolemaic system that he shut his eyes to the possibility of another world theory. On the contrary, he explicitly says that while its suppositions seem to solve the facts, nevertheless we need not say that they are thereby true. Another explanation, not yet 'hit upon' by men might equally well account for the appearances of things. Cf. *In II De Coel.* 17, Vivès, vol. XXIII, p. 161b: " . . . licet enim talibus suppositionibus factis appareant solvere, non tamen oportet dicere has suppositiones esse veras; quia forte secundum aliquem alium modum nondum ab hominibus comprehensum, apparentia circa stellas salvatur.

[4] We mention a few of these errors at random: the explanation of a missile's trajectory through the impulse given it by the surrounding air after leaving the hand (*In II De Coel.* 8, Vivès, XXIII, p. 130 a & b; *In III De Coel.* 7, p. 216b); the explanation of certain phenomena by occult virtues of things such as the blood-stemming power of the sapphire, the heart-lifting quality of gold (*De Occultis Operibus Naturae,* Opusc. XXX, Vivès, vol. XXVII, p. 506b), the paralyzing power of a certain type of

nor of a concatenated series of efficient causes in the world. If one's judgment is in error in one or two or several cases concerning the identity of a cause or its power, or the explanation of its operation, one does not thereby deny efficient causality altogether nor absolve oneself of the need of further investigation. Such procedure would be as reasonable as that of the District Attorney prosecuting a murder case, who, discovering that a suspect is not guilty, thereupon decides there is no murderer and terminates his investigation, though the body of the victim remains "Exhibit A". One does not impugn efficient causality by pointing out St. Thomas' relatively few errors. One simply attests to the inexorable exigency, imposed by reason upon man in his search for truth, which induces him to seek and suggest some rational explanation of every event or phenomenon however mysterious and elusive. We shall return to this in the following chapter. The point to be stressed here is that the errors that follow upon some of St. Thomas' physical misconceptions form a negligible and exceedingly insignificant part of his synthesis. By far the vast majority of his observations are sound and their explanation, certain.

II. GENERAL AGREEMENT OF ST. THOMAS AND ARISTOTLE

It would be idle and useless to enumerate the beings to whom St. Thomas ascribes efficient action. Their number is coextensive with being itself viewed as actuality.[5] In general however, they are, as with Aristotle, the elementary bodies, their compounds, corporeal beings of the three grades of life, heavenly bodies and spiritual substances. All of these have powers of action, as they have being itself, from God. Let us note St. Thomas' evaluation of the nobility of these beings from a consideration of their activity, and his conception of their ordered dependence.

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fish upon the fisherman (*In II Sent.* 15, 1, 2, 6m), the infection given a new mirror "ad aspectum menstruatae mulieris". (*De Malo,* 16, 9, 13m) etc.

[5] For the correspondence between form or being in act and action, see above p. 219.

A. *Comparison between substances by reason of activity.* It is a general principle in St. Thomas that operations or activities reveal the virtues of beings, and these in turn the nature of beings.[6] On the basis of this it is clear that the greater the activity, the greater the power of virtue and the more noble the nature. This being so, a being's operation is an index of its perfection and can be the measure of its comparison with other beings.[7] Applying this to creature substances, St. Thomas classifies beings thus:—

> "The lowest and most nearly akin to (pure) matter are the forms of the elements. These have no operation beyond active and passive qualities such as rarity, density and other properties of this nature.[8] . . . Above these are the forms of mixed bodies" (i.e. compounds) "which, in addition to the above-named operations have a certain specific operation of their own, which they enjoy by virtue of the heavenly bodies, such as the magnet's attraction for iron which is due, not to its own heat or coldness or anything of this nature, but to some participation in a heavenly power.[9] Over and above these forms again are the vital principles of plants which are

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[6] *C. G.* II: "Rei cujuslibet perfecta cognitio haberi non potest, nisi ejus operatio cognoscatur. Ex modo enim operationis et specie, mensura et qualitas virtutis pensatur. Virtutis vero naturam rei monstrat; secundum hoc enim unumquodque natum est operari, quod actu talem naturam sortitur." Cf. *ibid.* III, 69, Amplius, Si.

[7] *De Anim.* q. un. a. 1. Quod Quidem: " . . . tanto aliqua altior, quanto superioribus principiis magis assimilatur et appropinquat. Quod quidem ex propriis formarum operationibus perpendi potest."

[8] In *C. G.* II, 68, Quamvis autem, St. Thomas gives a more complete list of these active and passive qualities: "Invenimus enim aliquas infimas formas quae in nullam operationem possunt nisi ad quam se extendunt qualitates quae sunt dispositiones materiae, ut calidum, frigidum, humidum, siccum, rarum, densum, grave et leve et his similia, sicut formae elementorum." Cp. with Aristotle, pp. 77-78.

[9] Cf. J. B. McAllister, S.S., *The Letter of St. Thomas Aquinas, "De Occultis Operibus Naturae ad Quemdam Militem Ultramontanum"*, Translation, Critical Commentary and Analysis, Catholic Univ. Philosophical Studies XLII, Catholic Univ. Press, Wash., D. C., 1939, pp. 134 ff.

> not only like the heavenly bodies but also like the movers of the heavenly bodies themselves insofar as they are principles of self-movement. Beyond these again are the souls of brute animals whish resemble a substance moving the heavenly bodies not only in the operation whereby they move (other) bodies but also in the fact that they are cognitive in themselves, though their cognition is only of material things (known) in a material way, as a consequence of which they have need of corporeal organs. Finally, over these are human souls which are like to the superior substances even in the kind of knowledge (these latter possess) for by their understanding they can know immaterial things."[10]

The frame of reference of these beings is the similarity each has to the activity of the heavenly bodies or their movers, the separate substances. Both of these types of being are ranked supreme among created substances because of the extent and universality of their operation. This leads to the consideration of

B. *The relation of Inferior to Superior Substances.*

In the passage quoted above there is lucidly expressed a comparison of inferior substances to superior corporeal substances and their movers from the viewpoint of their activity and hence their actual being or active natures. It would be a mistake, however, if one were to conclude therefrom that the relation between the lower and the higher is simply one of similarity, a similarity of activity exercised in isolation and independence. St. Thomas with Aristotle would be quick to assert that similarity is a proper mode of causal communication (since everything produces an effect, in some aspect at least, like unto itself),[11] and that simi larity of activity, like similarity of being itself, betokens a communication of a power and an exercise of that power in dependence on that which is its proper cause. In other words there is a relationship of subordination and dependence for activity of the lower upon the higher. Thus, if we except the human soul which by reason of its spirituality, (though not by reason of its function as formal cause of its substance) is more noble than the forms of the heavenly bodies,[12] all other corporeal substances are directly influenced by and act in virtue of these superior bodies.[13] The latter are moved by, and in turn, act in

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[10] *De Anim.* q. unic. a. 1, Quod quidem etc.; cf. *C. G.* II, 68, Quamvis autem; *De Occultis Operibus Naturae, Opusc.* XXX, Vivès, vol. XXVII, p. 506b. In re the latter reference, see McAllister's translation (*loc. cit.*), par. 14, pp. 26-27.

[11] Cf. *S. T.* I, 3, 2, ob. 2; 19, 2c; 41, 5c; 115, 1c; *In II Sent.* 18, 2, 1, 4m, etc. Few formulae recur as often in St. Thomas' writing as this. The fact is everywhere evident to the senses. Man, brute, plant all engender under normal conditions, beings of their own species. Etienne Gilson offers the obvious metaphysical reason. " . . . if the being that causes

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does nothing but communicate itself to the effect, diffuse itself into the effect, then it is still the cause that is found in the effect, under a new mode of being, doubtless, and with differences due to the conditions imposed by the matter on which it exerts its efficacy" (*Spirit of Mediaeval Philosophy,* transl. by A. H. C. Downes, New York, Sheed and Ward, 1936, p. 95). See *ibid.* p. 98 for his warning against the expectation of specific similarity at all times and his emphasis upon the analogical character of the likeness. See also McAllister, *op. cit.,* pp. 112-115.

[12] We remark parenthetically that the human soul in its function as formal cause of the human body is not as noble as the forms of the heavenly bodies because, as we have already had occasion to note, it was St. Thomas' belief that the formal element of the celestial substances totally perfected its own material element so that there remained in the latter no potency to a new form. The two elements were therefore united indissolubly and incorruptibly. Not so however with the soul or vital principle, whether it be of man or animal or plant. For even though life is better than non-life and a vital principle is, simply speaking, better than a form which does not confer life, nevertheless the corporeal substances animated by these vital principles always contained within themselves their own elements of dissolution, viz. the matter which remained in potency to another form. Cf. *S. T.* I, 77, 3, 2m.

[13] *C. G.* III, 28. The whole chapter is devoted to the proof of the statement "quod corpora inferiora reguntur a Deo per superiora." The exclusion of man's intellect and will from the direct influence of the heavenly bodies is made the point of chapters 84 and 85 respectively. Both of these chapters contain implicit proof that St. Thomas differed with Aristotle on the question of the animation of the heavenly bodies. Aristotle, we have seen, believed that the celestial bodies were animate with a higher and more divine life than man himself (p. 82, ftn. 86; cf. also *C. G.* II, 70). If St. Thomas agreed with this, there would be no point

virtue of separate spiritual substances,[14] which themselves are moved by God.

Thus far, in this compressed picture of the concerted interplay of efficient causes, there is nothing radically different from Aristotle. But whereas for the latter this represented more or less the fullness of his view, for St. Thomas it stands as only a portion of his *Weltanschauung*. In his mind, Aristotle's work was incomplete. It was as it were the work of a caecescent artist whose dimming eyes rendered him incapable of reproducing with accuracy the detail, the coloring and highlighting of the scene before him. To the task of restoring, retouching, detailing the faded and forgotten masterpiece, St. Thomas assiduously set himself. The same scene lay before the new Master; yet it was not the same scene for a new light was flooding it bringing out in bold relief details that had escaped the Stagirite. The same faculty of sight was there yet it was one of perfect vision that could focus equally well on what was remote as on what was near at hand, that was sensitive to the blending of colors and perspective. The brush was guided now by one whose neat and dextrous strokes revealed the effortlessness of the art. The resulting product was truly a masterpiece of St. Thomas' own. Before outlining the fullness of the Angelic Doctor's work let us first note certain defects found in Aristotle's works and in the writings of other predecessors of St. Thomas apropos of causal efficiency and the relation between efficieny in finite beings and in God.

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in his excluding man's intellect and will from the direct influence of these intellectual corporeal substances. For St. Thomas' explicit denial of the animation of these bodies. see *S. T.* I, 70, 3c.

[14] Cf. *C. G.* III, 78 and 80. In the latter chapter St. Thomas, following the work, *"De Coelesti hierarchia,"* of the pseudo-Dionysius, expressly attributes the movement of the heavenly bodies to the fifth of the nine choirs of separated spiritual substances, i.e. the "Virtues". For the pseudo-Dionysius' work, cf. Migne, P. L. III, 200 ff. For the scriptural basis of seven of the nine choirs, see Colossians 1, 16 and I Thessalonians 4, 15.

III. ARISTOTLE'S SHORTCOMINGS

1. *Ignorance of Creation*

It is perhaps the major philosophic weakness of Aristotle's synthesis that he failed to arrive at the concept of creation.[15] This resulted in a certain opacity in picturing God's causality. Fearfully shying from the concept of production of being "ex nihilo", unfamiliar then with "total production of being", Aristotle seems to regard efficient causality simply as the tranformation, substantial or accidental, of being that already exists in some (subjectively) potential manner, of being, moreover, that has always existed in some such manner. For him then the problems relative to cosmogony, zoogony, anthropogony did not arise. The world, living beings, men always existed, eternally moved, of course, by God in infinite time. Moreover since this motion is necessarily eternal, it would seem that it is eternally necessary, that God therefore acts, not by free will in moving things, but by a necessity of nature.[16] Finally ignorance of creation resulted in a consequent imperfect expression of divine conservation. If God has not created being in its totality, then He does not properly conserve it in its totality.

2. *Understatement of Divine Knowledge and Providence*

In one of the loftiest flights of man's reason Aristotle soared to the very eminence of divinity itself and saw that its essence is subsistent thought itself, that thinking which is its life and activity is an untiring understanding and thinking of Thought.[17] God then at one and the same time is the supreme Mind (NOUS), perfect Intellection (NOESIS) and perfect object of Intelligence (NOEMA). Hence the divinity itself is the only proper and adequate object of the Divine Nous. Its happiness consists in thinking of itself, in eternal self-contemplation.[18] However, in this high-lighting of divine self-contemplation, Aristotle, it seems, unconsciously toned down and shaded God's knowledge of beings apart from Him. This has given rise to the illusion that for the Philosopher there could be no such thing as a divine providence over the world since what is unknown cannot be ruled or governed. We have attempted to point out that it is far from true to assume from what has been said relative to the divine self-rapture, that the God of Aristotle was ignorant of beings apart from Him.[19] Consequently, the denial of providence which stems from this assumption is itself something of a misconception of the Stagirite's position. We must concede to him at least the limited conception of providence which Maimonides attributes to him,[20] such namely as does not extend to individual and contingent things. Explicit in fact is Aristotle's own attribution to God of a providence that includes the maintenance and palingenesis of species.[21] In one place, moreover, there is faint indication that this providence extends further to include at least the virtuous among human beings for there is a suggestion that these who are most dear to the gods are specially cared for.[22] While it is difficult to believe that Aristotle went no further than this, nevertheless we must admit that his comparisons of God to the ruler of the city, to the general of the army, to the master of the household, are allusions to providence too few and fugitive to permit one to say any more. The point to be stressed is that both these doctrines needed much more emphasis than Aristotle allotted to them.

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[15] See above pp. 52 ff. where this was discussed in connection with Aristotle's incomplete notion of efficient cause.

[16] Cf. Jolivet, *Essai sur les Rapports,* pp. 67-69.

[17] *Met.* XI (Λ), 7, 1072b, 14-30; 8, 1074b, 15-1075a, 10.

3. *Understatement of God's efficient action and premotion*

We have taken scrupulous care to prove that the aristotelian deity is indeed a truly efficient cause of motion in the world.[23]

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[18] *Nic. Eth,* X, 8, 1178b, 8-25. See above, p. 93, for a consideration of this passage.

[19] *Supra,* p. 89 ff; praesert. ftn. 109, p. 90.

[20] *Ibid.* ftn. 107.

[21] Cf. *De Gen, et Corr.* 11, 10, 336b, 31. Vd. *supra,* pp. 81-82.

[22] Cf. *Nich.* Eth. X, 8, 1179a, 22-32.

[23] *Supra,* pp. 89-97.

The weight of opinion against this position has been great. This latter fact is evidence ample that the efficient causality of God received insufficient attention in his works. The reason, however, is not too difficult to grasp. It was the spot-lighting of another sublime concept of Aristotle which shadowed divine efficiency. God is the supreme good.[24] As such He is infinitely desirable by everything else, and moves everything else as a final cause.[25] The prominence attributed to this function of the diety in the causality of the motion of the world left unaccented and therefore unnoticed the fact and the correlative need of the divinity's actual efficiency. Lightly limned though truly there, this doctrine simply needed to be brought forth in bold vigorous strokes so that it would assume its proper portion when the final causality of God would be tied up with the efficient causality of secondary causes.

By reason of these deficiencies in his system, Aristotle was prevented from defining clearly and precisely the relation between God on the one hand and the beings of heaven and earth on the other in the matter of causality. Yet it is just this relation which has proven such a tinder-box of combustibles down through the ages in religious and philosophic thought. For the past 2000 years at least the problem of this relation has agitated men's minds. Its solution became one of the major concerns not only of philosophy but of religion, the Christian, no less than the Mohammedan and the Jewish. Intimately involved in it of course are the gravely human factors of predeterminism and liberty, physical necessity and ethical responsibility, fate and freedom. These represent however only a particularization of the one universal problem of infinite and finite causation. In order the better to place the thomistic solution in its proper focus let us now consider that position which, from a metaphysical viewpoint at least, represents perhaps the greatest reaction against Aristotle's relatively obscure expression of divine causality;[26]

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[24] *Met.* XI (Λ), 7, 1072b, 29.

[25] *Ibid.* 1072b, 3.

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[26] We may say that this reaction is most at variance with Aristotle from a metaphysical point of view. From another viewpoint, viz., the epistemological, there is another which is even more radically subversive of the Stagirite's. It is the agnostic and anti-intellectualistic position of Algazel, who in rejecting the validity and certitude of the judgments of speculative reason, overturned at its base every metaphysical system which avows a knowledge of being and its causes. By an unfortunate and strange oversight the gazelian attack was lost upon St. Thomas as well as upon the leaders of the scholastic movement in the 13th century. This east-Persian Arab (1058-1111) believed that the intellect could only serve to destroy the confidence one placed in it. A convert to Sufism (mystical sect of the Moslem religion), he affirmed that the only certain knowledge is that which is directly infused by God into the heart of the believer through mystical experience. His attack upon causality was the culturing of heraclitean phenomenalism which was to reap its full fruit in humean empiricism. His dialectic, D. B. McDonald tells us was as inexorable as that of Hume himself (cf. art. "al Ghazali" in *Encyclopedie d'Islam,* publié par M. T. Houtsma, A. J. Wensinck, E. Levi et al., vol. II, pp. 154-156). Charles Jourdain speaks of his critical analysis of the notion of causality as being one of the most original parts of his vast polemic in which he anticipated Hume in reducing causality "à l'idée d'une relation habituelle entre deux faits dont l'un suit le plus souvent l'autre, sans qu'il exists entre eux une relation nécessaire." (*La Phil. de St. Thomas d'Aquin,* Hachette et Cie, Paris, 1858, vol. I pp. 30-31). In view of this it seems rather amazing that one finds in St. Thomas' works no mention of this attack, nor attempted refutation. However the reason is not, as Gunther Schulemann affirms that "die Führer der Hochscholastik scheinen sich der Tragweite der algazalischen Argumente nicht voll bewusst gewesen zu sein" (*Das Kausalprinzip in der Phil. des hl. Thom. v. Aquino,* pp. 3-4). The truth of the matter seems to be that with the exception of a few authors (among whom are numbered Roger Bacon, Godfrey of Fontaine and the Spanish Dominican of the 13th century, Raymund Martin) *all of the leaders of the scholastic movement were in utter ignorance of the attack* (cf. D. Salman, O.P., "Algazel et les Latins", *Archives d'hist. doctr. et litt. du Moyen Âge,* vol. X-XI, 1935-1936, pp. 103-127). The explanation follows. Two major philosophic works were written by Algazel, the *Tendencies* (i.e. the essential views, the objectives) *of Philosophy (Maqâcid el-falâcifa)* and the *Destruction of Philosophy (Tahâfot el-falâcifa).* The former, covering the fields of logic, physics and metaphysics—(a medieval latin version of the metaphysics and

it is that which comes from the broad and influential front of Islam's most orthodox teachers and interpreters of the Koran—

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physics has of recent years been published by the Institute of Medieval Studies in Toronto in a new edition by Rev. T. J. Muckle, C.S.B., under the title *Algazel's Metaphysics*)—exposes and apparently espouses the doctrines of Aristotle as interpreted by Avicenna. The *Destruction* on the other hand reprobates these very theories. In a little known preface to the *Tendencies* which, as Munk tells us significantly, was suppressed in the majority of the Latin Mss. but which is found in two different Hebrew versions and in one Latin version (bequeathed to the Sorbonne by Godfrey of Fontaine in 1303), Algazel informs his readers that his purpose is simply and uniquely to make known as a simple reporter the theories of the philosophers. After finishing this work, the preface goes on to say, "we shall commence the work of the *Destruction of Philosophy* in order to show clearly what falsehoods these doctrines contain." (cf. S. Munk, *Mélanges de Philosophie Juive et Arabe,* Paris, A. Franck, 1859, pp. 370-371.) We say it is significant that this preface was omitted in the majority of the mss. of the *Tendencies,* for without this preface and with no knowledge of the later book, the *Destruction,* one would have no reason whatsoever for suspecting that the former did not perfectly reflect the authentic views of Algazel. On the contrary, so loyal and so perfectly objective was this written that it would be impossible to recognize therein the work of a critic and a polemist who was simply giving an exposition of doctrines he intended to refute. This then seems to have been the background of the error into which the majority of the writers of the middle ages fell, relative to the authentic doctrine of Algazel. There existed no Latin translations of the *Destruction* and the most common versions of the *Tendencies* lacked the preface (and also the conclusion). It is evident that in this situation only the pseudo-Algazel became known. The few authors who at different periods recognized the truth never succeeded in making themselves heard and the error continued well down into the 19th century when Solomon Munk discovered the prologue and the conclusion of the *Tendencies* among the Sorbonne Mss. and brought it to the attention of the philosophical world. His discovery, disputed for a time, has been definitely corroborated by the studies of M. L. Gauthier, "Scolastique musulmane et scolastique chrétienne, Appendice", in *Rev. d'hist. de la philos.* II, 1928, pp. 358-365. Returning to the 13th century and to St. Thomas, it is significant to note that in speaking of Algazel's doctrines he never mentions the *Destruction,* but when occasion calls for it refers to the physical and metaphysical sections of the *Tendencies.* In *De Potentia* (3, 4c) he groups Algazel with Avicenna in refuting the latter's theory of finite creativity.

the sect called the Motekallemin.[27] This sect so insisted upon the all-permeativeness of divine providence and predestination that

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Actually in his metaphysics (cf. Muckle, *op. cit.,* pp. 119-120, 125-126) Algazel set forth and apparently espoused the avicennian theory. Again, when St. Thomas invokes peripatetic tradition in favor of the position he maintains against Averrhoes in his opusculum *De unitate intellectus* he doesn't hesitate to make an appeal to the authority of Algazel in two different places (cf. *Opuscula,* Mandonnet edit., Paris, Lethiellieux, 1927, vol. I, p. 50 and p. 67. For Algazel's words, see Muckle, *op. cit.,* pp. 40-41, 172). Salman (*op. cit.,* p. 107) believes that such a recourse to Algazel's *Tendencies* on the part of one who was so careful to cite only "authentic works" of authors, in a polemical work that was destined for the public, is an indication of the misinformation prevalent in the entire parisian milieu of St. Thomas' time. One is not surprised therefore that the Angelic Doctor did not answer the attack of the true Algazel.

[27] No less than a century after Mohammed's epic Hegira (622 A. D.) from Mecca to Yatreb (later called Medina, the city of the Prophet), when already the violent religious fanaticism had abated, this school was flourishing as the recognized expositors and propounders of the Prophet's revealed word (calam). Its influence persisted and dominated Islam's thought (even against the more liberal-minded Mutaziliten sect and the rising popularity of Arabian Aristotelianism well down into the twelfth century when, to use Rashdall's words, "the torch of Aristotelian thought was handed on to Christendom." (Hastings Rashdall, *The Universities of Europe in the Middle Ages,* edited by Powicke and Emden, London, Clarendon Press, 1936, vol. I, p. 351.) Originally established as a theological school it was at first satisfied with a mere explanation of the Koran. From the middle of the eighth century, however, when, under the dynasty of the Abassidae, aristotelian thought, transmitted by the Syrian Christians began to be received with favor and even enthusiasm, the Motekallemin saw the urgency of devising a philosophical system which would provide the rational basis for the acceptance of dogmas hitherto proclaimed on authority alone. Reason now had to be combatted by reason. Aristotle as presented by his Arabian champions was regarded as a definite threat to rigid orthodoxy by reason of views that were thought to indirectly imperil if not openly oppose their revealed truths. It was thus that Islam's dogmatic polemic became philosophic in character. (Cf. Albert Stoeckl, *Handbook of History of Philosophy,* translated by T. A. Findley, Dublin, Fallon & Co., 1903, Pt. II, Scholastic Philosophy, pp. 290-293). The Motekallemin are frequently referred to as the Ascharites, so called after their most famous representative, al Ascha'ri (880-941). We think it better however to

they unhesitatingly denied creature-action. They have thus come to be regarded as the mediaeval forerunners of modern Occasionalism.[28] Associated with these in time and in their socio-religious milieu are certain philosophers, Arabian and Jewish followers of Aristotle or Plato who, ineluctably influenced in that milieu by the doctrine of divine premotion, at times tempered the philosophic differences or actually distorted the aristotelian doctrine, thus undermining the doctrine of finite efficiency.

IV. ISLAM, ARAB AND JEWISH REACTION

1. *Religio-philosophic:—The Motekallemin*[29]

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retain the more general designation, especially in view of the fact that al Aschari in proposing a compromise theory that would reconcile the warring factions was so obscure and so little free of contradiction that he can, without distortion, be understood in a sense that is absolutely inimical to the Motekallemin position. (Cf. Ludwig Stein, "Antike und mittelalteriche Vorläufer des Occasionalismus", *Archiv für Gesch. der Phil.* Bd. II, 1889, p. 215 ff., praesert, pp. 219-220.) When occasion calls for it, St. Thomas refers to them simply and impersonally as "quidam loquentes in lege Maurorum", (cf. *De Pot.* 3, 7c; *C. G.* III, 69, Propter has etc.), i.e. certain expositors of the Word (calam).

[28] Cf. Ludwig Stein, *op. cit.* The author seeks to show that long before the Motekallemin the Stoics were forced to the same conclusion, driven by logic and the inexorability of the fate under which they lived (*loc. cit.* pp. 198-207). Numbered also by the author among the forerunners of occasionalism is the Christian mystic, Richard of St. Victor (vd. pp. 224-231).

[29] For the philosophical and religious views of this sect, as indeed of the Motazaliten we are dependent upon the account given by Moses ben Maimon in his *More Nebukhim* which has been made more accessible by Solomon Munk's translation under the title *Le Guide des Égarés,* 3 vols., Paris, A. Franck, 1856, 1861, 1866. All other secondary sources which have been consulted depend upon Maimonides for their presentation of Islam's religio-philosophic views. Thus Albert Stoeckl, *Geschichte der Philosophie des Mittelalters,* Bd. II, Mainz, Kirchheim, 1865, pp. 138-174; see also by same author, *Handbook of the History of Philosophy,* Engl. transl. cited above, pp. 305-309; Friedrich Ueberwegs, *Grundriss der Geschichte der Philosophie,* Berlin, Mittler und Sohn, pp. 242 ff.; François Picavet, *Esquisse d'une Histoire Générale et Comparée des Philosophies Mediévales,* Paris, Felix Alcan, 1907, pp. 154-f55; Gunther Schulemann, *Das Kausalprinzip in der Philosophie des hl. Thomas von*

For orderliness and clarity the views of the Motekallemin shall be presented under topical headings which correspond to those under which Aristotle's shortcomings have been noted, viz., creation and conservation, providence, action and pre-action.

a. *Creation and Conservation:*—In more than one of the Koran's 114 Suras there is explicit and implicit reference to the creation and temporal inception of the world. The two concepts were never clearly distinguished in the minds of the Moslems. In other words creation and temporal beginning were so inextricably joined together that such a thing as an eternal creation was to them *unimaginable* and therefore *inadmissible*.[30] Consequently Aristotle's affirmation of the eternity of the world was *ipso facto* a denial of creation along with a denial of the world's temporal beginning. Thereupon they undertook to demonstrate (to express it in their own ideas) that *the world did not always exist but was created!* It is not necessary to discuss the seven lengthy arguments they entered upon to vindicate this position and, as it were, refute Aristotle.[31] The judgment of Maimonides—the more acceptable inasmuch as he himself was desirous of discovering a conclusive rational argument for creation—will suffice. They are all, he says, inacceptable, sophistic, inconclusive, unworthy

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Aquino, Beitr. z. Gesch. d. Phil. d. Mittelalt., Bd. XIII, Heft 5, 1915, pp. 99-100; L. Stein, *op. cit.,* pp. 220-222. It is noteworthy that St. Thomas himself depends upon Maimonides for the opinions of the Mohammedans, relative to causality. Cf. *In II Sent.* 1, 1, 4c; *S. T.* 105, 5c; *De Pot.* 3, 7c etc. For the absolute trustworthiness of Rabbi Moses' report cf. Munk, *op. cit.,* vol. I, p. 400, ftn. 2.

[30] Maimonides alludes to this weakness in Moslem thought of following imagination and dignifying it by the name of reason. Cf. *More Nebukhim,* I, c. 71, Munk, I, p. 346: " . . . dans beaucoup d'endroits, ils (i.e. les Motécallemîn) suivent l'*imagination,* qu'ils décorent du nom de *raison*". (Italics his). From this it follows that only the imaginable is conceivable, possible, reasonable and the unimaginable is thereby inconceivable, impossible and unreasonable. This is a very dangerous proposition. Strangely enough it is one to which Maimonides himself seems to have fallen prey, for he always opposes creation to eternity as if eternal creation were intrinsically impossible. Cf. *ibid.* II, c. 16, Munk, II, p. 128-129, and passim.

[31] Maimonides, *More Nebukhim,* I, c. 74, Munk, I, 419-435.

of the name demonstration and rather weaken than bolster the position they seek to defend.[32] No logic attends their reasoning, for after having posited certain assumptions "they preemptorily decide in the midst of their demonstrations that the world is created; and once it is established that the world is created, it is indubitably clear there is a worker who has created it."[33]

Satisfied that their arguments have validly proven the fact of creation and the existence of a Creator, they proceed to explain the extent of God's creative action in the world. God created immediately every substance and every accident in the world. This act of creation is continually being renewed at every instant, with each indivisible atom of time, because no substance nor accident is capable of subsisting numerically the same at any successive moment of time. As a matter of fact this instantaneously transitory character is the only true idea of the accident themselves. For, according to Maimonides they say that:

> As soon as an accident is created, it does not remain but passes away, and God creates another of the *same species.* This passes away in like manner and God creates a third of the *same species*; and this process continues as long as God wishes *this species* of accident to last."[34]

If this is true of accidents it is likewise true of substances, for the two are existentially inseparable. If each and every accident of a substance passes out of existence as soon as it is created, so too must the substance with which they are indissolubly linked. And if with each succeeding moment accidents specifically the same but numerically different are created so too with the substance; God simply creates a numerically different though specifically identical substance with each new accident. If He wishes a substance to cease to be He merely refrains from creating its proper accident or accidents as the case may be.[35] This belief in the fleeting, ephemeral character of substance and accidents has serious reprecussions on finite causality as we shall presently see; but let us for the moment turn our attention to their expression of divine providence.

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[32] *Ibid.* II, c. 16, Munk, II, 128-129.

[33] *Ibid.* I, c. 71, Munk, I, 346: "Après avoir donc établi les propositions que nous te ferons connaître, ils ont péremptoirement décidé, au moyen de leurs démonstrations, que le monde est créé; or, dès qu'il est établi que le monde est créé, il est indubitablement établi qu'il y a un ouvrier qui l'a créé". The propositions supposedly established to which Maimonides refers are the twelve assumptions set forth by the Motekallemin before attempting to prove the creation of the world, the existence of God, His unicity and incorporeality (Cf. Munk, I, 375 ff; 419, ftn. 3).

[34] *Ibid.* I, c. 73, Munk, I, 389: " . . . l'accident donc, aussitot qu'il est créé, s'en va et ne reste pas, et Dieu crée un autre accident de la même espèce. Ce dernier s'en va également, et Dieu en crée un troisième de la même espèce; et cela se continue ainsi, tant que Dieu veut faire durer cette espèce d'accident."

b. *Providence and Divine Governance*:—If God is continually and unintermittently creating everything afresh at every moment of time, then there can be nothing whose existence He does not determine and rule. This is precisely what the Motekallemin maintain, as Rabbi Moses assures us. They believe there is absolutely nothing however minute in detail or universal in extent which takes place fortuitously. Everything on the contrary is the effect of a single will, intention and regime. (It follows of course that nothing escapes the knowledge of God, since everything that is governed must be the object of knowledge).[36] Even the simultaneity in occurrence of two or more disconnected and totally unrelated phenomena is an issue of divine providence and predestination. The falling of a leaf from a tree at the death of a man, for example, is not a purely fortuitous event. It isn't by chance that the wind blows (though we shall see that its blowing has no influence whatever upon the falling of the leaf).[37] The wind blows, the leaf falls, the man dies, in fact everything happens as a consequence of a judgment and decree of God. Even the moment and place of occurrence are determined so that, in the illustration, the leaf could not fall at any other time, nor in any other place save as actually happens. From this they draw the conclusion that nothing is contingent, everything is either rigidly determined, absolutely necessary or else, impossible (i.e. necessarily is not, and cannot be). The disastrous bearing of such an interpretation of divine predestination upon the human liberty is readily conceivable, and is frankly acknowledged by the Motekallemin.[38] We are interested in this, however, not primarily to the extent that it contains a denial of human freedom, but rather to the extent that it reveals the scope of divine efficiency. Without ambit to His action there is absolutely nothing of which He is not the agent. Not yet content with this expression of Divine activity, they add: Furthermore, there is *nothing of which God is not the sole Agent.* This will be immediately evident.

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[35] *Ibid.* I, 391: " . . . lorsque Dieu veut que la substance cesse d'être, il n'y crée pas d'accident, et par là elle cesse d'être."

[36] *Ibid.* III, c. 17, Munk, III, 119-120: "(Ils) croient qu'il n'y a dans l'univers absolument rien, ni dans les détails, ni dans le tout, qui arrive fortuitement, et que tout, au contraire, est l'effet d'une volonté, d'une intention et d'un régime. Or, il est clair que tout ce qui est gouverné est l'objet d'une connaissance."

c. *Action and Pre-action*:[39]—God not only knows all things minutely, determines all things eternally, creates all things continually, but His action is so intimate and exclusively unique as to preclude not only the need but also the possibility of action (even of an instrumental character) on the part of anything created. Philosophic justification for this theory is built up from what has already been said about the fleeting character of each individual substance and accident. If no substance nor accident abides numerically identical with itself at any successive instant of time and God must continually create anew, the following consequences, they maintain, ensue:—

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[37] *Ibid.* Munk, III, 120: "Ce n'est pas non plus le vent qui a fait tomber les feuilles" God has simply established it "comme une *chose habituelle*" that a dead leaf should deciduate at the gust of a strong wind. See below; also Munk, I, 391 ff.

[38] *Ibid.* Munk, III, 120-121. Hard pressed to keep intact the imputability of human action and moral merit in the face of such predestination, they propose al-Aschari's theory of the Kasb. The Kasb, according to Ludwig Stein (*op. cit.*, pp. 217-224) seems to be a power of assent or consent left within man. His merit consists in assenting to what he is predetermined to do. The interpretation of the precise nature of this Kasb varies anywhere from a marionette's head-bow to a power within man that in a sense is independent of God. Perhaps the most powerful objection to the whole theory is the dilemma proposed by one of their own group, an Arab thinker by the name of ibn Hizam. He affirms that this Kasb is either wholely independent of God or else it is a creation of God. In the former case man is free and the divine causality is broken. If on the other hand the second alternative is true then the theory is meaningless and without content (*loc. cit.*, p. 224). Neither of these is acceptable.

[39] The use of the term pre-action to express more fully the Moslem's

> 1) There is no such thing as *motion,* neither divine nor human, and *a fortiori* there is no such thing as divine *premotion.* In the aristotelian sense motion supposes at least these two things: a pre-existing subject on which action takes place and a being with an active potency capable of affecting this subject. Now at no time is there a pre-existing subject either of divine action or (assuming for the moment that there is such a thing) human action, for this reason. Pre-existence connotes duration. But we have seen that no substance nor accident perdures numerically the same at any two successive split seconds of time. Consequently, whatever action there is must be action without motion, i.e. creative action. This of itself would be sufficient to prove, in their opinion, that no creature can act; for its action would have to be a creation and creation is proper to God alone. But they go on to point out that the second requisite for motion is lacking to created being, viz., active potencies. For if a substance were possessed of a power or potency of this kind, then that potency would have to endure as long as any activity following from it, lasted. But this cannot be since the power as such is an accident and therefore something of the moment only, instantaneously transitory but not transient. In other words it can

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concept of divine action in the world is a mere convenience at this point. It is selected for two reasons; to set it off against the idea of "premotion" and to indicate that though it is decidedly different, nevertheless it assumes a role corresponding to that played by "premotion" in the aristotelian-thomistic sense. The correct and incorrect understanding of the prefix "pre" will shortly be noted, pass into nothing but nothingness; it cannot pass into, nor be transferred to, nor influence in any way another being. The non-necessity of *premotion* follows from the non-existence of *motion* if we are to understand by premotion a motion of God (e.g. applying or moving a faculty to action) that is anterior (by a priority of nature at least if not of time) to the action itself that is properly attributed to the creature-power. If then there is no (active) motion of the creature, there is no *premotion* of the Creator. Accordingly it is God and God alone who creates all substances and all accidents, even the accidents of activity and so-called movement.

The motion that is commonly thought to be due to the action of one creature upon another is really not motion but a phenomenon of successive accidents created by and attributable only to God. Translated into a modern example, they might describe it in this fashion. If we possessed a film of sufficient sensitiveness and delicacy to receive the impression of divine action, and if we had a stroboscopic "movie" camera[40] of sufficient intensity and rapidity capable of being synchronized with each indivisible moment of time so that it could capture this action, we would have a film of associated and innumerable reified creations whose projections in space and time give the illusion of the motion and action of one body upon another.

2) There is, as a consequence, no true finite 'causality'. No real causal nexus or liaison exists between any created substance or accident and any that have gone before or are to follow. For example, the cloth which we believe we have tinted red has not been dyed by us;

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[40] A stroboscope is a device for producing extremely short flashes (five millionths of a second long) of very bright light at regular and controllable intervals of time. It is used, among other things to make moving objects appear motionless, and, attached to a still or "movie" camera permits the photographing of things traveling at extremely high velocities. Thus, by regulating the emission of light flashes to equal the revolutions of an electric fan, the revolving blades appear motionless. This remarkable instrument was invented and is being further perfected by Prof. Harold E. Edgerton of the Massachusetts Institute of Technology. Cf. Robert Littell, "A Lamp that Freezes Motion", *Scientific American,* February, 1940.

rather it is God who has made this color appear in the cloth at the moment it has touched the dye. We mistakenly think that the dye has penetrated the cloth. God has simply established it as a customary thing that this should happen on the occasion of the contact of the two, that this black color for instance should appear in the cloth only when it touches the indigo. There is really no causal influence of the indigo upon the cloth. God merely creates the accident of black color on this occasion. Like all accidents it immediately passes away and another accident of blackness is created. We may confidently expect that the disappearance of this black color will not be followed by a red or a yellow color, but regularly by black since God has disposed things in this fashion. He habitualy conjoins certain activities which He Himself produces with certain corresponding effects which He also evokes.[41]

3) Divine action and divine pre-action are alone at work in the world of created nature. That the first is so, is quite clear on their suppositions. God's action is all-pervasive and nothing else is active in any respect. The second however is at first sight somewhat confusing. How is one to understand divine *pre-action?* Certainly not as though a creature-action were possible, though antecedently requiring the creative action of God in order to be realized. Such a possibility of creature-action has already been scouted. There seems to be only one sense in which the term pre-action is proper. It is

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[41] Maimonides, I, c. 73, Munk, I, 391-392. In this paragraph, Maimonides' text has been more or less literally followed even to the change of illustration from dyeing a cloth red to dyeing it black. More than anything else this paragraph clearly indicated how well the Motekallemin merit the name "Occasionalists" long before such men as Malebranche, Geulincx, Cordemoy, etc. St. Thomas we have said always referred to them impersonally as "quidam loquentes in lege Maurorum" but in expressing their thoughts, his identification of them is unmistakable. They are those who think that "nulla creatura habet aliquam actionem in productione effectuum naturalium, ita sc. quod ignis non calefacit, sed Deus causat calorem, praesente igne; et similiter dicunt in aliis omnibus effectibus naturalibus". (*C. G.* III, 69, Ex Praemissis). The example of fire and heat is a favorite illustration of Thomas in describing their views.

this. In the ordinary dispensation of divine providence events do not take place at random or haphazardly, but always according to a definite order. One thing follows another in regular succession, so that one creative act of God which is thought to be an effect must necessarily be preceded (with a necessity of divine decree only, not a necessity that is due to the nature of created things) by another creative act and this by another. For example, according to the Motekallemin, the process of writing on paper with a pen requires the creation of four distinct accidents, no one of which is a cause of another, all of which however are made to coexist in a certain order of priority. The first accident is the desire to move the pen. But to move the pen something we may conveniently designate as a faculty, is also required and so a second accident is created.[42] This accident is (by divine ordination) prior to the creation of the third accident, viz., the hand movement itself, which in turn is prior to the fourth accident, the movement of the pen.[43]

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[42] It is necessary to insist that when they speak of creation of a faculty in man there is no question here of *man acting by means of this created faculty*. This has positively no influence whatever on the action of the hand and this we may add, in turn, has no influence whatever on the movement of the pen. *Ibid.* Munk, I, p. 394: " . . . il (homme) n'agit point au moyens de la faculté créée dans lui, laquelle n'a point d'influence sur l'action . . . " (p. 393) "le mouvement de la main s'unît au movement de la plume, *sans que pour cela la main ait une influence quelconque ou une causalité dans le mouvement de la plume*" (Italics mine).

[43] *Ibid.* p. 394: " . . . Dieu a créé quatre accidents qui ne servent point de cause les uns aux autres, et qui ne font que *coexister* ensemble. Le premier accident, c'est ma volonté de mouvoir la plume; le deuxième accident, c'est la faculté que j'ai de la mouvoir; le troisième accident, c'est le mouvement humain lui-même, je veux dire, le mouvement de la main; enfin, le quatrième accident, c'est le mouvement de la plume". The word "coexister" (italicized in the French) indicates that the priority of one of these accidents to another is not a temporal one. It would seem to be the equivalent of what St. Thomas and Aristotle would call a natural priority. Yet there cannot be such a priority in the metaphysics of the Motekallemin. For natural priority assumes the existence of fixed natures and is based upon causality. Now they reject both fixity and 'causality' in everything but God Himself. God's fixed nature and efficiency can well account for the *natural priority* of *His action* to *each and every substance and accident* which is a result of

With this we conclude the account of the metaphysical system of the Motekallemin as it particularly pertains to efficiency and the relation of creatures to God. As Munk observes, they destroy all causality, all relations between the things of this world and tear up so to speak the bonds of nature.[44] It is not difficult to see that theirs is a philosophic system spun out of a desire and indeed a panic need of providing a surfacely-rational basis for the rigidly deterministic and inexorably fatalistic conception of Divine Providence and Predestination as it was found in passages of the Koran. In their belief that all created things are subject to the divine will and to absolute fate and that nothing is left to their own determination or power, they felt that the greatest honor to the Divinity and the greatest safeguard for its unprejudiced sway over all is the denial of anything that smacks of creature-action, efficiency, causality; hence the attempt to evolve a system that would preclude the possibility of finite efficiency and preserve unimpaired their pre-conceived principles. In doing so they showed an utter disregard of being as such,[45]

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that action, but they cannot explain the sense in which, of four accidents that are *simultaneously the result of God's action,* one can be prior to another. At a loss to explain this they must fall back on divine will. God has simply determined that one be prior to another. He will not normally create the faculty to write unless He also creates the will to write; nor will He create the movement of the hand, for the purpose of writing, unless He at the same time creates the will and the faculty; nor finally the movement of the pen unless He creates the will, faculty and hand movement. On the contrary, He might create the will to write and not create the other three accidents. In this sense then might the will be said to be prior to the others.

[44] *Mélanges de Philosophie Juive et Arabe,* Paris, A. Franck, 1859, p. 223: " . . . les Motécallemîn détruisent toute causalité, toute relation entre les choses de ce monde, et déchirent, pour ainsi dire tous les liens de la nature.

[45] Cf. *ibid.,* Munk, I, 346: " . . . j'ai trouvé que la méthode de tous les Motécallemîn est d'une seule et même espèce, quoique présentant diverses variétés. En effet, ils ont tous pour principe qu'il ne faut pas avoir égard a l'*être* tel qu'il est, car ce n'est là qu'une *habitude,* dont le contraire est toujours possible dans notre raison".

destroyed its very nature,[46] and denied all philosophic arguments that failed to coincide with these preconceptions.[47] Such is the religious philosophy which dominated Islam's thought down to the thirteenth century.[48]

2. *Arabian and Jewish Aristotelianism and Neo-Platonism*

Side by side with the Motekallemin religious philosophy, the Aristotelianism and Neo-Platonism of both Arabs and Jews were continually struggling to assert themselves. The philosophical speculation of both were consciously or not influenced by their religious affiliations, the Jew no less than the Arab, for the former's Tora and Talmud were equally as explicit on the doctrines of creation, divine providence and determinism as was Islam's Koran for the Arab. The apparent breach between these doctrines and those advanced by the philosophers such as Aristotle's theory on the eternity of the world or Plato's emanation theory led to many difficulties both social and intellectual. Some philosophers positively refused to yield on any truths about which they had an intellectual conviction simply because they were at variance with the scriptures sacred to their religion. These were consequently branded as heretics and socially ostracized. Avicenna (907-1037) in the East and Averrhoes (1126-1198) in the West, to avoid such condemnation or else merely to palliate their coreligionists resorted to the ingenious though absolutely erroneous distinction of the two truths.[49] It may be added that this subterfuge did not save Averrhoes from being persecuted as a heretic during his lifetime.[50] Others, however, convinced that there is and should be no conflict between revealed truths and those attained by the light of reason sought to reconcile the apparent antinomies. Of these Maimonides (1135-1204) succeeded better than anyone prior to St. Thomas himself. Others however were not so successful. Contradictions abounded or else philosophic truth suffered in the attempt to establish harmony. At this point we are interested only in such misconceptions and distortions as affect causality and constitute a departure from the aristotelian insistence upon the efficiency of secondary movers. For our present purpose moreover we need consider only those two mediaeval philosophers who are associated by St. Thomas with the Motekallemin in this attack on finite efficiency.[51] They are Avicenna, the aristotelian Arab of platonist leanings and Avicebron (1020-1070), the neo-platonist Jew. Neither of these have gone as far as the religious philosophers of Islam in rejecting all creature-action. As a matter of fact in their opposition to them, they bend over backwards in the question of spirit-action. Nevertheless their systems are a definite threat to the activity of corporeal substances, while at the same time they exaggerate out of all due proportion the activity of pure spirits, conceding to them a creative power.

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[46] *Ibid.,* Munk, I, 458: "En effet, ils (i.e. the Motekallemin) ont effacé toute loi naturelle et altéré la nature du ciel et de la terre, en prétendant que par ces propositions on peut demontrer que le monde est créé." While this judgment refers specifically to their arguments for creation, there is no doubt but what Rabbi Moses would extend its condemnation to their whole metaphysical system, since it is the general principles of this which serve as the basis of their arguments for creation. Apropos the words "loi naturelle", Munk appends a note wherein he says that a literal translation of the Hebrew in this place is: "ils ont detruit la nature de l'être." It might have been better had he retained the literal translation.

[47] *Ibid.,* Munk, I, 351.

[48] Cf. Hastings Rashdall, *The Universities of Europe in the Middle Ages,* vol. I, p. 351.

a. *Avicenna*: It has been noted that the aristotelianism of some of these mediaeval philosophers was anything but an ectype, faithful in all respects to the Master. Frequently Aristotle's theories were simply forced into a platonist frame-work.[52] It is so with this philosopher of Bokhara. He agreed with Aristotle in vigorously maintaining that God is absolute simplicity, pure act, Thought of Thought. From there on, however, the similarity somewhat fades, as he appeals to the platonist and plotinist emanation theory to account for the procession of the world and the generation of matter (which Aristotle asserted was ingenerable). God as absolute simplicity cannot be the immediate cause of diversity and plurality. Consequently it is only through a descending series of emanations from the divinity that one can explain the variety of the eternal world. In knowing Himself God causes to proceed from Him a second unity which is the first Intelligence or Noûs. In this first emanation rests the possibility of plurality for in the Noûs can be distinguished potentiality and actuality. From the former proceeds the highest sphere or the heavens, from the latter the soul which corresponds to the highest sphere and is called the world soul. From this other souls and spheres proceed, the first immediately and all others mediately, until one comes to the lowest celestial or Lunar Sphere with its moving principle called the Active Intelligence. The latter is the last in the series of purely spiritual emanations and this contains within itself the forms of all corporeal things which it infuses into the matter that it generates.[53] These forms, however, cannot be infused immediately into matter unless and until it is properly disposed to receive them. To this end, that matter may be properly disposed, accidental active forms are conferred on matter. Corporeal substances thus endowed with accidental forms are active only to the extent that they dispose matter for the reception of the substantial form imparted by the separated Active Intellect.[54] In no sense however is a corporeal substance perfectively operative or causative of another substance. Evidence of this he says is the fact that in corporeal substances there are found no active virtues except accidental forms. These, he is convinced, are not sufficient to account for the production of substantial forms.[55] Such in brief are Avicenna's views relative to causality. We see that he magnifies the causality of separated substances by making their active power a creative power, and he minimizes the causality of corporeal substances by allowing them a power of producing only accidental changes and of being only dispositively causative of substantial changes.

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[49] This is the ill-starred legacy of human thought which asserts that something may be true according to religion and revelation but philosophically false and unsound or *vice versa* that there is a philosophical truth that can be at variance with religious teaching. This was the first express acknowledgment of an irreconcilable antagonism between science and philosophy on the one hand and religion on the other. Its repercussions are felt to our day. For Avicenna's and Averrhoes' distinction see Albert Stoeckl, *Handbook of History of Phil.*, pp. 292, 300 ,304.

[50] Rashdall, *op. cit.*, p. 352.

[51] Cf. *C. G.* III, 69, Quia enim omne; *ibid.*, Quidam vero, etc., *De Pot.* 3, 7c.

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[52] *Supra,* pp. 160-161.

[53] For this presentation of Avicenna's emanationism, see St. Thomas, *C. G.* II, 42, Excluditur autem . . . opinio Avicennae; *De Substantiis Separatis* (seu *De Natura Angelorum*), c. 8, Vivès, vol. XXVII, Opusc. 14, p. 290a; *De Pot.* 3, 16c. Avicenna's own expression of this may be found in the following works: *De Definitis et Quaesitis,* fol. 138, p. 2; *De Divisione Scientarum,* fol. 143, p. 1, sq.; *Metaphysices Compendium* (Carâme Edit.) Lib. I, pars 4, Tractatus 2, cap. 1. Cf. Stoeckl, *Gesch. d. Phil. d. Mittelalt.,* pp. 30-31 and *Handbook of History of Phil.,* pp. 296-297; A. Forest, *La Structure Metaphysique du concret selon Saint Thomas d'Aquin,* Paris, J. Vrin, 1931, pp. 331-360.

b. *Avicebron*: If Avicenna had neo-plationist predilections, this Spanish Jew of Malaga, author of the book "De Forma et Materia seu de Fonte Vitae" was a thorough-going neo-platonist.[56]

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[54] Cf. *C. G.* III, 103, Haec autem positio; *Ibid.* II, 76, Item, Secundum hoc; *Ibid.* III, 69, Quia enim omne.

[55] *Ibid.* III, 69, Quia enim omne: "Hujus signum esse videbatur quod nulla virtus activa invenitur esse in istis corporibus nisi accidentalis forma, sicut qualitates activae et passivae, quae non videntur esse ad hoc sufficientes quod substantiales formas causare possint." (St. Thomas is here voicing Avicenna's arguments to which he later responds. *Infra,* p. 315).

[56] Solomon Munk, *Mélanges de Philosophis Juive et Arabe,* Paris, A. Franck, 1857, p. 5 ff. The first portion of this book contains translated excerpts from the "Fons Vitae". Cf. also Stoeckl, *Gesch. d. Phil. d. Mittelalt.,* pp. 60-67. Stoeckl's closing words on Avicebron are "Ganz der neuplatonische Gedanke". Incidentally it is to Munk's fine scholarship that credit is due for revealing in his *Mélanges* the identity of Avicebron, the author of the *Fons vitae* with the Spanish poet Jew, Ibn Gebirol. For six centuries the true personality and the Jewish origin of the book was unknown. The complete Latin version of the *Fons Vitae* which was the one most probably known to St. Thomas and his contemporaries may be found in a comparatively recent edition in Volume I of the *Beiträge zur Gesch. der Phil. des Mittelalters.* Clemens Baeumker is responsible for this new edition under the title, *Avencebrolis (Ibn Gebirol) Fons Vitae ex Arabico in Latinum translatus ab*

The emanation theory employed by Avicenna occupies an equal prominence in Avicebron's system. Distinctive of his theory, however, is the hylemorphic composition of everything outside of the Godhead. The Universal Intelligence which immediately proceeds from God, the World-soul which emanates therefrom in turn, and Nature which proceeds from the World-Soul are all composed of matter and form. It is this material element which passes down from each and finally becomes visible in the bodies of the material universe just as in parallel fashion, it is the formal element of these which by devolution passes into these bodies as their corporeal form. And if matter and form reach corporeal natures from the higher world, in similar fashion does action and motion. There is no proper activity of corporeal things. All activity observable in the realm of corporeal natures is extrinsically caused by a spiritual power emanating from a spiritual form and penetrating all bodies.[57] The latter are farthest removed from God as substances. As God, the first being in pure act, so corporeal substance, the last in the genus of things, is purely passive.[58] Such then is a brief of Avicebron's opinion

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Iohanne Hispano et Dominico Gundissalino, Munster, Aschendorffianis, 1892-1895.

[57] St. Thomas, *C. G.* III, 69, Propter has: " . . . ponit Avicebron quod nullum corpus est activum sed (quod) virtus substantiae spiritualis pertransiens per corpora, agit actiones quae per corpora fieri videntur." St. Thomas clearly referring here to a passage found in Avicebron's *Fons Vitae,* Book II, 14. After speaking of the hampering effect of quantity on the activity of a body, the author points out that the more subtile the composition of a body, the more is it apt to receive the influence of the separated spiritual substances: " . . . l'impression que reçoit la substance est d'autant plus visible, quand, étant d'une complexion subtile, elle est apte à recevoir son impression (et par *impression,* je veux dire l'impression que font dans elle les substances intelligibles en y pénétrant) et alors se montre l'action que les substances spirituelles exercent sur les corps, en les pénétrant et en les traversant, comme le (rayon de) soleil qui pénétre à travers certains obstacles et les perce." Munk, *Mélanges, Extraits de la Source de Vie,* p. 24. Cf. Baeumker's *Avencibrolis . . . Fons Vitaes, op. cit.,* vol. I, heft 2, 1892, p. 41.

[58] In addition to this distance of corporeal substances from God, Avicebron also notes the quantified character of bodies and the absence

of finite efficiency. It resembles that of Avicenna's very closely, though it is more devastating of the concept of the activity of corporeal beings than was that of the Arabian, since it denies to them all activity, even of an accidental and dispositive character.

So much for the reaction and opposition to Aristotle in the matter of finite and infinite causality and the relation between the two. In the succeeding pages attempt will be made to clarify St. Thomas' position, and in doing so, to note his response to the various opinions set forth.

V. THOMISTIC BALANCE AND SYNTHESIS

In a manner as stout as any of Islam's rabid religionists, the Angelic Doctor affirmed the supremacy and all-permeativeness of the divine causality. At the same time he staunchly vindicated the efficiency proper to creatures against occasionalism's denial. His position was not a "mugwump" opportunism but one which courageously steered a middle course without cost of principle or common sense realism. In the presentation of his synthesis, the nature and extent of Divine Causality shall first be treated; following this, a critical defense of finite efficiency; finally its range and its reconciliation with the causality of God.

1. DIVINE CAUSAL ACTIVITY

A. CREATION AND CONSERVATION OF BEING

Concept of Eternal Creation

No less than the Tora and the Koran, the Scriptures which were regarded by St. Thomas as sacred and inspired clearly

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of operative faculties as being responsible for their inactivity. Thus he says: " . . . outre que la quantité retient cette substance, et lui rend impossible d'être active, celle-ci est en elle-même privée de mouvement, à cause, de son éloignement de la source et de la racine du mouvement, et parce qu'il ne lui arrive pas de la faculté active, qui meut les choses, de quoi devenir elle-même motrice et active; il en résulte donc qu'elle reste fixe sans communiquer le mouvement, quoiqu'elle soit mue, c'est-à-dire passive" (Munk, *Mêlanges, ibid.* p. 24). See also Baeumker's *Avencibrolis . . . Fons Vitae, op. cit.,* p. 41. Cf. St. Thomas, *C. G.* III, 69, Addunt, Etiam.

testified to the beginning of the world in time through the creative act of God. In the face of this it is interesting to note how different is the reaction of St. Thomas from that of the Moslems in regard to Aristotle's doctrine on the eternity of the world. Unlike the Motekallemin, he refused to be stampeded by the panic fear that unless the eternity of the world were rationally disproved the intellectual basis for creation would by that very fact collapse. With sublime imperturbability and a perspicuity that reveals his independence and soundness of thought he calmly analyzed the two concepts. He saw on the one hand that the affirmation of the world's eternity did not prejudice in any way its created character; and on the other that rational proof of its being created in no wise contains a denial of its eternity. The two are really distinct though not rationally incompatible concepts. In other words he realized that an eternal creation is not intrinsically impossible. According to his lucid statement in the opusculum *De Aeternitate Mundi*[59] it would be repugnant only on two scores: (a) either because it is necessary that an efficient cause precede its effect in point of duration or (b) because it is necessary that non-being (nothing) precede being from the same point of view. Both of these he discusses and refutes successively.

(a) As to the first, no cause which acts without motion need precede its effect in duration. It is difficult, St. Thomas readily admits, for men to grasp this concept, so accustomed are they to processes that take place through motion, processes in which the beginning of motion is necessarily anterior in time to its end.[60] Nevertheless the fact remains that if a cause is capable of acting without motion (and there must be such a cause if creation is heuristically admitted for the time being) then there is no reason why, at whatever moment such a cause begins to produce its effect, the *terminus* of its action and therefore the effect could not be present. All the less reason would there be if the cause in question is an omnipotent cause in whom there is nothing defective.

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[59] *Opusc.* XXIII, *Tractatus quid sit possibile de aeternitate mundi,* Vivès, vol. XXVII, pp. 450-453.

[60] *Loc. cit.,* p. 541b: " . . . quia homines consueti sunt considerare hujusmodi factiones quae sunt per motum; ideo non facile capiunt quod causa agens duratione effectum suum non praecedat."

(b) Nor need non-being (nothing) precede being by way of duration. When by creation it is said that something is produced from nothing the meaning is just this. It is not made out of anything as a pre-existing material cause. Clearly this does not imply an order or relation of that which is made to nothing just as though it is necessary for nothing to have been first before anything was made.[61] In one sense only need nothing precede the being of creatures, viz., by a precedence of nature. But how can nothing be naturally prior to the existence of creatures? In this way, reasons the Angelic Doctor.

> "What is proper to a thing in itself is naturally prior to it than what is had from something else. But no creature has existence save from another. Consequently, left to itself and considered in itself, it is *nothing*. Hence nothing is naturally prior to it than is being." [62]

He hastens to clear away a possible confusion that might arise.

> "This does not mean that nothing and being are together simply because nothing does not precede being temporally. For we do not assert that if a creature always was, at some time nothing is: but rather, the nature of the creature is such that *if left to itself it would be nothing*. For example, if we were to say that the air has always been illumined by the sun, it would (still) be necessary to say that it was made lucid by the sun, (and since a thing is made something from its contrary) it would (still) be necessary to say that it was made lucid from (being) non-lucid or dark; not that it was

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[61] Cf. R. P. Phillips, *Modern Thomistic Philosophy,* London, Burns, Oates and Washbourne, Ltd., 1935, vol. II, p. 332: " . . . the idea of creation does not imply any passing from one state to another, a passage from the state of nothingness to the state of being, but only the entire dependence, for the whole of its being, of the creature on the creator."

[62] *Ibid.,* p. 542a: "Prius enim inest unicuique naturaliter quod convenit sibi in se, quam quod solum ex alio habet. Esse autem non habet creatura nisi ab alio; sibi autem relicta in se considerata nihil est; unde prius naturaliter inest sibi nihil quam esse."

> ever non-lucid or dark, but that it would be such if left to itself."[63]

The sober judgment of St. Thomas on the matter is evident. Eternal creation in the abstract is something that is not contrary to reason. It is a far cry, however, from a speculative admission of non-repugnance or intrinsic possibility to the categoric assertion that a thing is factually so or not so. Aristotle, ignorant of creation asserted that the world was eternal and attempted to prove it. His arguments St. Thomas shows are not applicable to an absolute First Cause or Creator.[64] Others, cognizant of creation (either from reason alone or from revelation) affirmed that the world is not and cannot be eternal. These likewise attempted to prove rationally their position. Their arguments are not only inconclusive but even bring discredit upon themselves and ridicule upon religion. It was perhaps for this reason that St. Thomas went to such lengths to show that reason is incapable of demonstrating the intrinsic impossibility of an eternal world. That the world, *de facto,* is not eternal *is known from revelation alone.* St. Thomas warns his own coreligionists who were seriously at fault in this regard to bear this well in mind, lest anyone seeking to demonstrate what pertains to faith alone, should offer such reasons as give occasion of mirth to infidels who think that is for reasons of this nature that we believe what is of faith.[65] But the faith of St. Thomas had also given utterance to the affirmation of the created character of the world. Was this fact also impervious to human reason, to be accepted only on authority, or was it rather susceptible of rational demonstrative proof? The Angelic Doctor's answer is unequivocal. Here is a question on which reason itself may speak and does speak very decidedly. Not only can reason prove that creation is possible, but further it can demonstrate that all things must necessarily have been created by God.[66]

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[63] *Ibid.* "Nec oportet quod propter hoc sit simul nihil et ens, quia duratione non praecessit: non enim ponitur, si creatura semper fuit, ut in aliquo tempore nihil sit: sed ponitur quod natura ejus est talis quod esset nihil, si sibi relinqueretur; ut si dicamus aerem semper fuisse illuminatum a sole, oportebit dicere quod (aer est factus lucidus a sole) . . . oportebit dicere quod sit factus lucidus ex non lucido, vel tenebroso: non ita quod nunquam fuerit non lucidus vel tenebrosus, sed quia esset talis, si sibi soli relinqueretur."

[64] Cf. *supra,* p. 121, n. 60. See also *In VIII Phy.* 2, Vivès, vol. XXII pp. 628b-630b. In Book two of the *Contra Gentiles* St. Thomas has entered very extensively into the arguments in favor of the eternity of the world. They are grouped in three classes viz., arguments *ex parte Dei* (c. 32), *ex parte creaturae* (c. 33) and *ex parte mundi factionis* (c. 34). His refutation of these follows in the three succeeding chapters (cc. 35, 36, 37). For an extremely lucid and succinct presentation in English of these arguments and responses, the reader is referred to Robert L. Patterson, *The Conception of God in the Philosophy of Aquinas,* London, Allen & Unwin, Ltd., 1933, pp. 422-433.

Fact and Need of a Creator

In creation we are faced with a concept that is very difficult to grasp, since in attempting to do so one is abandoned by the prop of imagination. The production of a thing according to its whole substance, which production presupposes no material cause that is itself uncreated or created by anyone,[67] is something one's phantasy simply fails to conjure. Yet this emanation of being from non-being which is nothing is something which was forced upon St. Thomas after analysis of finite being and consideration of the perfections of the Infinite.[68] Proof for creation is necessarily a particularisation and application of a more generalized conviction and argumentation that all things that exist in any way whatsoever are from God.[69] For, in order to prove creation, it is necessary to demonstrate that God requires no pre-existing matter on which to act as do both nature and art. And the demonstration that there need be no presupposed uncreate matter for the operations *ad extra* of God is in the main but part of the general proof that all beings, even the supposed "aliquid praesuppositum" have existence derived from God, that there is nothing which is not caused by Him.[70]

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[65] *S. T.* I, 46, 2c: " . . . mundum incepisse est credibile, non autem demonstrabile, vel scibile. Et hoc utile est ut consideratur ne forte aliquis quod fidei est demonstrare praesumens, rationes non necessarias inducat, quae praebeant materiam irridendi infidelibus existimantibus nos propter hujusmodi rationes credere quae fidei sunt." St. Thomas groups the more imposing of these arguments and responds to them in *Contra Gentiles*, II, 38. See also Patterson, *op. cit.*, pp. 433-437.

[66] *S. T.* I, 45, 2c. To the question "utrum Deus possit aliquid creare", St. Thomas makes answer: "Respondeo dicendum quod non solum non est impossibile a Deo aliquid creari ex nihilo, sed necesse est ponere a Deo omnia creata esse."

[67] *S. T.* I, 65, 3c: "Creatio est productio alicujus rei secundum suam totam substantiam nullo praesupposito quod sit vel increatum vel ab aliquo creatum."

[68] Assumed at this point is the fivefold thomistic proof of God's existence which ends in the predication of the five designating marks of the one Being, viz., Primum Movens, Primum Efficiens, Primum Necessa-

No attempt shall be made here to expound at length the numerous arguments advanced by St. Thomas for creation.[71] Many of these are only different approaches to a few main streets of thoughts, variations of a few many-faceted gems. We shall limit ourselves therefore to a brief sketch of three arguments that may be said to be typical.

(1) RELATION OF PARTICIPATED BEING TO ESSENTIALLY SUBSISTENT BEING

It is a demonstrable fact that God is essentially subsistent Being, that is to say, His existence is His own essence since it is absolutely underived (from another) and unreceived (in it-

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rium, Primum et Maxime Ens, et Primum Gubernans intelligendo. Assumed likewise is the consideration of the divine attributes. It is significant that the question of creation is treated in the *Summa Theologica* only after the existence of God has been proved and the perfections of God have been considered.

[69] It is interesting to note that in both the *Summa Theologica* and the *Contra Gentiles* the Angelic Doctor immediately prefaces his discussion of creation with the proof that "omnia quae sunt, a Deo sunt." (Cf. *C. G.* II, 15; *S. T.* I, 44, 1c.)

[70] *S. T.* I, 45, 2c.

[71] In chapter 15 of the second book of *Contra Gentiles,* St. Thomas lists seven arguments drawn from reason in support of the contention that everything that exists is from God, and in chapter 16 we find twelve proofs for creation proper. Many of these are reproduced elsewhere in his works, especially in the *Summa Theologica* (qq. 44 and 45) in Book II of his *Commentary on the Sentences* (d. 1, q. 1, a. 1 and

self).[72] He cannot be said to have existence but rather to *be* His own Existence, and in this respect He is absolutely unique.[73] It follows therefore that no being apart from God *is* its own existence. They may only be said to *have* existence, to share it, to receive it.[74] But whatever is found in a being by participation must necessarily be caused in it by that to which it belongs essentially, as the flowing lustre of iron is caused by the fire.[75]

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2) and in the *De Potentia* of the *Quaestiones Disputatae* (q. 3, a. 1).

[72] Cf. *S. T.* I, 3, 4c. If God's existence were not necessarily of His very essence two inacceptable consequences would follow: (a) He would not be Pure Act (contrary to an immediate inference from the fact that He is *Primum Movens*) since His essence would be to His existence as potency to act; (b) He would not be the Prime Efficient Cause (as He is proven to be by the *secunda via, S. T.* I, 2, 3c) since what is above and beyond essence must be caused (efficiently) by another, and if existence is something not pertaining essentially to essence it too must be caused by another. Since these consequences are absurd it is necessary to maintain that God is both Prime Efficient Cause and Pure Act. His existence therefore is His very essence and is neither derived from another, nor received into His essence.

[73] Cf. *S. T.* I, 11, 3c. The unicity of the Deity is proven by St. Thomas from (a) its absolute simplicity, (b) its illimitable perfection and (c) from the order and unity in the world. (a) Lacking composition of matter and form, God is essentially simple. Consequently God is His own nature and this, therefore is incapable of being numerically multiplied among others. (b) In His infinite perfection He is of unparaleled excellence. In Himself He comprehends the whole perfection of being. Were many gods possible there would have to be some mark of distinction between them—distinction which could only be in the realm of perfection. One therefore would have a perfection which another lacked and none would be simply perfect. (c) Things that are entitatively diverse are not brought under a single order except by a single ruler. But in the universe all things are found ordered to each other in one harmonious whole. Therefore there is required a single ruler whom we call God.

[74] *Quodlibet.* II, a. 3: "Quandocumque aliquid praedicatur de altero per participationem oportet ibi aliquid esse praeter id quod participatur, et ideo, in qualibet creatura aliud est ipsa creatura quae habet esse, et ipsum esse ejus; et hoc est quod Boetius dicit in lib. *de Hebdomad.* quod 'in omni, eo quod citra primum, aliud est esse et quod est."

[75] *S. T.* I, 44, 1c: "Si enim aliquid invenitur in aliquo per partici-

All beings therefore, however diversified they may be, to the extent that they share in being, are caused by the one Prime Being who subsists with such absolute independence and perfection. This of course necessarily applies to matter as well as to form; even prime matter, since it is being in potentiality and since it can therefore be said to share in being, albeit most feebly, must also be caused by God.[76] Consequently there is nothing which is presupposed to the divine action.[77] Hence creation is not only possible but is absolutely necessary if the present existence of the world is to be accounted for.[78]

(2) Relation of the Contingent to the Essentially Necessary Being

Whatever is capable of being and of not being, must, if it is to exist, have its indifference to existence removed by a cause that determines it to be, and this cause ultimately must be that being which is uniquely, and, by reason of its own being, necessary, viz., God. It follows then that God is the source and cause of all existence and existents, and requires no material cause as a condition of its efficient action.[79] Creation therefore is absolutely necessary since, of all being, matter is the most contingent.

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pationem, necesse est quod causetur in ipso ab eo cui essentialiter convenit; sicut ferrum fit ignitum ab igne."

[76] It is necessary to observe that not even God can produce prime matter alone, i.e. unformed and absolutely undetermined matter. It has been noted that the existence of prime unactuated matter is inconceivable and intrinsically impossible, (*supra*, p. 222, n. 78). Cf. *Quodlibet.* III, 1; *S. T.* I, 66, 1c.

[77] Cf. *C. G.* II, 16, Item, Materia.

[78] As presented here this argument is simply an unfolding, and, in the last part, an application of the first argument found in the *Summa Theologica,* I, 44, 1c. The same proof is reproduced in the following places: *De Pot.* 3, 5c; *C. G.* II, 15, Item, Quod; *Comp. Theol.* I, c. 67; *In II Sent.* 37, 1, 2c.

[79] *C. G.* II, 15, Praeterea, Omne. It is clear that this proof is ultimately reducible to the first, for if it is asked why any and every being outside of God is indifferent to exist and is capable of existing and of not existing, the reason in the last analysis is that existence is other than and not necessarily demanded by the being's essence as such. The exist-

(3) COMPARISON BETWEEN PARTICULAR AGENTS AND THE UNIQUE UNIVERSAL AGENT

Every agent acts to the extent that it is in act, and its mode of acting follows its mode of being in act. Now a being may be in act either particularly, or universally and totally. It is said to be particularly in act in two ways; in reference to itself and in reference to other things in act. In reference to itself a thing is particularly in act if it is not in act according to its whole substance. Under this class, of course, must be grouped all things composed of matter and form. They are in act only by their forms and consequently they operate, not according to their whole substance, but by their forms through which they are in act. In reference to everything else in act, a thing is said to be particularly in act if it does not possess in itself the acts and perfections of all other beings that are in act. Now no natural being includes within itself all such acts or perfections. Each of these rather has an act (form) that is determined to one genus and species. Consequently, in its action it is not causative of *being as such,* but only of *this particular being* to the extent that it is *this* being, determined in this or that species. Hence, since it cannot produce being simply, it can only act upon pre-existing being and determine it to this or that. It acts therefore by motion and requires matter as a subject of mutation. No particular being therefore can create or produce being "ex nihilo". God alone on the contrary is in act not particularly, but totally, universally. In reference to Himself He is Pure Act with no admixture of potency. He is in act therefore according to His whole substance. In reference to other beings in act He is the source and origin of them all, containing virtually and eminently in Himself the perfections of all. Consequently, as the principle of all being, as being's entire and adequate cause, He produces, by His

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ence of such beings therefore is a shared or participated existence, and must be received from Him who is necessarily and essentially His very Existence. For other expressions of this argument from contingency and necessity see the following: *De Pot.* 3, 5c and 6c; *C. G.* I, 15, Amplius, Videmus.

action, the whole of subsisting being without presupposing the existence of anything out of which it is to be made.[80]

Incommunicability of the Power of Creation

From these proofs, but particularly from the last, one sees that by creation is meant the complete and absolute dependence of the world upon God, for its very being.[81] Once this is grasped there is no difficulty in the thomistic position that creation, as a production of simple being, as such, is an effect proper to God alone and cannot be shared, strictly speaking, by anything apart from God, even instrumentally. In denying the fact of a creative power being communicated to any finite being, St. Thomas is definitely opposing Avicenna (and indeed Avicebron as well as all who maintain anything like the plotinian theory of emanation). These equivalently maintain that the power of creation not only has been communicated to finite immaterial beings, but indeed that their possession of such a power is an absolutely necessary fact, the simplicity of God being such that diversity in the world cannot otherwise be explained.[82] Moreover, together with this group St. Thomas also opposes certain philosophers and theologians among whom the great Peter Lombard is listed, for maintaining that through the divine creative power *de facto* has not been communicated, nevertheless, it could have been and might still be since there is no repugnance in its being shared ministerially by separated substances,[83] i.e., not by a proper virtue of their own but by a communicated instrumental virtue.[84] The difference between the two groups seems to be only a difference between an affirmation of fact and one of mere possibility.

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[80] *De Pot.* 3, 1c.

[81] Cf. Phillips, *op. cit.,* p. 333: " . . . the phrase 'created being' signifies primarily 'being' and then a relationship of absolute dependence of this being on its first principle and source."

[82] Cf. *supra,* p. 266.

[83] *In II Sent.* 1, 1, 3c.

[84] St. Thomas' cleavage with Peter on this particular point is a result of his more mature and considered judgment. When, earlier in his life (1254-1256), he commented on the Sentences of Peter, he inclined to the view that the Magister's stand relative to the possibility of creative power being instrumentally communicated to finite beings while less common than its contrary was at least tenable and he even adduced argu-

Before he disproves Avicenna's theory of finite creativity St. Thomas strikes at the false assumption which, as has been indicated, was the occasion for forming the theory, viz., that the divinity in its absolute simplicity cannot immediately produce diverse beings. This might be so if God were to act by a necessity of nature. If, however, God is an intelligent principle who acts according to forms conceived, there is no need of His being limited to one immediate effect.[85] On the contrary, since His Wisdom contains all things, the order of the universe and the distinction of its parts, there is nothing to prevent a multitude of diverse effects from being produced by Him immediately.[86] This is especially so since by His omnipotence He is capable of effecting immediately everything that Nature produces (since He is Nature's cause).[87] Indeed what nature effects by several distinct

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ments that could be advanced in favor of this position. Somewhat unfounded in this regard is Robert L. Patterson's reference (*op. cit.,* p. 402) to Thomas' "emphatic repudiation of the doctrine in the fourth book (of the *Sentences*)". The passage Mr. Patterson has in mind (d. 5, q. 1, a. 3, sol. 3) can in no sense be construed as an emphatic denial. Actually in the place cited, St. Thomas simply records the more common opinion to which he subscribes. " . . . Nulli creaturae secundum communem opinionem communicari potest talis potentia". (*loc. cit.*) In his answers, however, to the fourth, fifth and seventh objections which follow after this solution, St. Thomas comes to the defense of the Magister's opinion What the Angelic Doctor emphatically rejected here as elsewhere is the attribution of a proper creative power to finite beings. He toys, however, with the possibility of an instrumental creative power. It was not until later in his life that he definitely cast this possibility aside. Cf. *De Pot.* 3, 4c; *S. T.* I, 45, 5c.

[85] *De Substantiis Separat.* Opusc. XIV, Vivès, vol. XXVII, p. 290b: " . . . quia res procedunt ab intellectivo principio quod agit secundum formas conceptas, non oportet ponere quod a primo principio, etsi in essentia sua sit simplex, procedat unum tantum."

[86] *De Pot.* 3, 4c: " . . . a Deo procedunt res per modum scientiae et intellectus, secundum quem modum nihil prohibet ab uno et simplici Deo multitudinem immediate provenire, secundum quod sua sapientia continet universa."

[87] *Ibid.* 3, 7, 16m: "Posset . . . Deus effectum naturae etiam sine

operations, God can do by one and the same supratemporal will action.[88]

Having thus disposed of the false assumption which prompted Avicenna's recourse to the theory of finite creativity, St. Thomas turns to the theory itself and proves that neither by its own proper virtue, nor by an imparted instrumental virtue can any secondary cause create.

(1) No Secondary Cause Creates by its Own Proper Virtue[89]

Effects should be proportioned to their causes; actual effects to actual causes, potential effects to potential causes, particular effects to particular causes, universal effects to universal causes, etc. Now being, i.e. existence, is the first and most universal of all effects, and therefore must be attributed to the first and most universal cause, viz., God. No other agents can be the proper cause of being simply, but only of being this or that, of being this man or that whiteness. Hence God alone can create simple being. His power alone is properly proportioned to so prime and universal an effect.[90] If then any other agent were to give being it could do so not by its own virtue but only because it acts instrumentally in virtue of that Prime Agent to whom the creation of being is proper.[91] But in the act of creation this is

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natura facere." Cf. *C. G.* III, 99, entire chapter; *In IV Sent.* 43, 1, 2, sol. 1, 2m.

[88] *In II Sent.* 1, 1, 4, 3m: "Deus non habet operationem determinatam ad aliquem effectum; immo una sola operatione potest omnes effectus quod vult producere."

[89] In fairness to Avicenna and his *sequaces* it should be noted as St. Thomas points out (*De Pot.* 3, 4c) that when they speak of the separated substantial intelligences creating, they do not mean that this virtue is exercised independently of God. They readily grant that, being at most secondary causes, they operate in virtue of a higher cause, and ultimately in virtue of the highest cause of all. What is objected to is the belief that creation of *being* is within the competency of their natural powers, even granting that these powers are moved by God.

[90] Cf. *C. G.* II, 21, Adhuc, Effectus; *De Pot.* 3, 4c; *S. T.* I, 45, 5c; *De Subst. Separtis,* c. 8, p. 290b.

[91] *De Pot.* 3, 4c: " . . . quaecumque alia causa dat esse, hoc habet in

impossible for

(2) No Secondary Cause Creates Even as an Instrumental Cause

(a) In the first place no secondary instrumental cause shares in the action of a superior principal cause save to the extent that it operates at least dispositively towards the effect of the principal.[92] Otherwise there would be no reason for its being applied as an instrument if it did not even dispose the matter for the induction of the formal effect; nor would there be any need of using definite kinds of instruments for determined effects. But in the absolute production of being by simple creation there is offered neither occasion nor need of instrumental action, even of a dispositive type *since there is no matter to be disposed out of which the effect is made by the principal cause.*[93]

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quantum est in ea virtus et operatio primae causae, et non per propriam virtutem; sicut et instrumentum efficit actionem instrumentalem non per virtutem propriae naturae, sed per virtutem moventis." Cf. *C. G.* III, 66, Amplius, Quando.

[92] We say "at least dispositively" though some instruments may act "perfectively" towards the effect of the principal cause by reaching to the very form which is to be induced and not merely to the necessary material predispositions for that form. Thus, whereas the active and passive virtues of the elements are perfective instrumental causes of the substantial forms that are educed from matter, these same active and passive virtues are only dispositive instrumental causes of the spiritual form of the human composite, which is "ab extrinseco" (cf. *In IV Sent.* 1, 1, 4, sol. 1c). It is to be noted, however, that instrumental causes must have at least a subordinate dispositive action if they are to merit the name and the function of instrumental causes.

[93] *S. T.* I, 45, 5c. An apparent exception to this would at first sight seem to be the example of instrumental dispositive causality mentioned in the previous note, viz., the disposing of the human body for the creation and infusion of the spiritual soul. Upon examination, however, the difficulty is dissipated. Creation essentially will always be the "productio rei *ex* nihilo, i.e. non *ex* aliquo praesupposito." In other words there is required for creation no *"materia ex qua."* There may or may not be required a *"materia in qua"*, i.e. some matter in which or with which the being created naturally subsists. For the creation of certain beings like the angels and (St. Thomas adds) the heavenly bodies there is required

(b) In the second place the action of something, even its action as an instrument, must proceed from its own active potency, for instrumental action is nothing but the application of a being's proper power and action to the effect of a principal cause. But since the potency of every creature is finite it is impossible that any creature operate even as an instrument in the act of creation, for creation demands an infinite virtue in the potency whence it proceeds. Only such a potency can bridge the infinite chasm between non-being and being.[94] Herein is revealed unmistakably the divine character of the act as well as the sheer inability of any finite being, however noble, to create.[95]

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neither a matter out of which nor in which they are produced. Other beings, while they are produced out of nothing are nevertheless created *in* something. Notable among these are human souls, and, in the supernatural order, "gratia creata". Both of these require something *in* which they are produced; human souls, because they are of themselves incomplete substances; "gratia creata" because it is an accidental supernatural quality. Consequently in both human generation and in human justification or sanctification there is place for instrumental dispositive causality. It should be insisted, however, that the instrumental causes do nothing in the way of disposing "materiam ex qua" for either the human soul or supernatural grace (*since neither is produced "ex aliqua"*) ; they can at most dispose the "materiam in qua" (cf. *De Pot.* 3, 4, 7m and 8m). St. Thomas has succinctly expressed the difference in this fashion, using the example of justification (which may be called a "re-creation") : "Creatio nihil praesupponit circa quod posset fieri instrumentalis agentis actio; recreatio vero praesupponit" (*De Verit.* 27, 4, 15m).

[94] Cf. *De Pot.* 3, 4c. St. Thomas here adduces five arguments to prove that an infinite potency is required to create. Of these we need mention only the first, the distance between being and non-being. The argument runs thus. The power of an agent is proportioned to the distance between that which becomes and that whence it becomes. Thus, the colder a thing is and the farther removed it is from heat so much the more intense must be the calorific content of that which will cause it to become hot. But non-being is infinitely removed from being. This is evident from the fact that non-being is infinitely more removed from determined being than any one being is from another, however, great the distance that intervenes between the two. Consequently only an infinite power can make something from non-being that is absolutely nothing.

[95] See Patterson, *op. cit.*, p. 406.

Conservation of Being[96]

As Omnipotence is required to produce being simply from nothing, Omnitenence is needed to prevent its annihilation. This offers no difficulty if one bears in mind the fact which St. Thomas emphasizes again and again that being, if left to itself, would be nothing. Created being at every moment of its existence must be continually dependent of its proper cause. This continual dependence the Angelic Doctor calls the divine conservation, It is as necessary that God's power be present to sustain being at each successive moment of its existence (supposing of course that God wills it continued existence) as it was necessary in order that it exist in the first place.[97] Since the conservation of a thing is nothing more than the continuation of its being, it is consequently clear not only that the cause of its conservation is identical with the cause of its being but that the very action by which being is conserved is simply the continuation of the action whereby it was brought into being. The divine omnitenence expressed by conservation is no more than the projection of the divine omnipotence demanded by creation without any new action. It is absurd to suppose, as the Motekallemin did,[98] that with each successive moment, a new creative action (new in the sense of being terminatively new) was required in order that the species whose individual members were becoming instantaneously extinct, might be preserved. Preservation, not merely of a specific identity but of a numeric identity, is affirmed and accounted for by St. Thomas in the continuation of the same action which brought the individual and the species into being, an action that is supratemporal in character, and connotes in the agent no motion or change.[99] Apart from the fact the the principle of parsimony would recommend the thomistic solution, it has the noted advantage of doing honor to the divine omnipotence without derogating from the all-pervasiveness of the divine causality. By denying the individual and numeric perdurability of substance and accidents from one moment to another, the Moslem philosophers actually withdrew from the power of God a virtue He might be expected to have, one, in fact, which He cannot be lacking without a deficiency and imperfection in His nature.

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[96] The main sources of this doctrine in St. Thomas' works are the *Summa Theologia* (I, 104, 1 and 2), *Contra Gentiles* (III, 65), *De Potentia* (5, 1 and 2), *Compendium Theologiae* (I, c. 131).

[97] Garrigou-Lagrange well sums up this doctrine in the following manner: " . . . the creature not only depends upon God for its becoming at the moment when it is produced, but also depends upon Him for its very being, and this at every moment of its existence. It would immediately fall into nothingness if, for one moment, God ceased to preserve it in its being: just as the scientific knowledge of a conclusion disappears when the principle upon which it rests is forgotten and when the objective light which causes this knowledge in us is lost to view." Cf. R. Garrigou-Lagrange, O.P., *God: His Existence and His Nature,* trans. by Dom Bede Rose, Herder, St. Louis, 1936, vol. II, p. 143.

[98] *Supra,* p. 256.

The creation and conservation of being then is one and the same divine action connoting in the creature absolute dependence; creation simply implying absolute dependence for *beginning to be,* conservation, absolute dependence for *continuing to be.* There is, however, this important difference between the two as far as creature-action is concerned. In the act of creation, as already indicated, no finite being, however exalted, can cooperate, even as a dispositive instrumental cause. It is not so however in cosmic conservation. What God created without creature-action He wills in certain respects to sustain in being through the ministrations of secondary causes. Though whatever is created is created immediately, not everything that is conserved is conserved immediately,[100] for in creation itself, a certain order has been instituted whereby some beings should depend upon and be maintained in being by others. Never for a moment, however, can the conserving power of God be dispensed with. God acts always and principally in the conservation of beings; creatures, sometimes and then only secondarily.[101] The participation of creatures in cosmic conservation will be further discussed when the nature and extent of finite activity is treated. It is mentioned here simply to stress the difference between creation and conservation from the view-point of creature-action.

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[99] *S. T.* I, 104, 1, 4m: "Conservatio rerum a Deo non est per aliquam novam actionem, sed per continuationem actionis qua dat esse; quae quidem actio est sine motu et tempore".

[100] In anticipation of certain difficulties that may rise relative to the understanding of the term "immediate" the following observations seem apposite at this point. When it is said that there are some things which God does not conserve *immediately,* it simply means that these beings are conserved in accordance with an order imposed upon nature, by *means* of secondary causes. (The nature of this intermediary conservation will be discussed in its proper place). It does *not* mean that God's influence is made thereby mediate, or (as in an ordered series of secondary causes where one is more removed from, another more proximate to the effect

B. DIVINE KNOWLEDGE AND PROVIDENCE

In order to enlarge upon God's causal activity, it is necessary to investigate as far as human wisdom is permitted into the reason-revealed reaches of the divine mind that is to say into the divine knowledge and providence, of which the creation and conservation of which we have heretofore spoken are but partial expressions.

In a manner not unlike Aristotle, the Angelic Doctor affirmed that God is pure Intellect, His own act of unceasing Intellection

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produced, and where the cause that is most proximate to the latter is *exclusively immediate* to it whereas all others are one or two or more beings suppositally removed from it according to their place in the series) that the being (supposit) of God, who is the first cause of all, is thereby most removed from all. On the contrary it must be understood that God operates in all things (even where intermediary secondary causes are employed) by an immediacy of virtue as well as an immediacy of supposit. As shall be indicated further on (p. 296ff.) all finite causes (and indeed those more distant from the first cause even more than those nearer to it, because of the diminished share in efficiency) function in virtue of and by means of the divine potency. Hence the virtue of God is most immediate in all things and, since God is His own virtue, the same must be said of His supposit. This does not alter the fact that in all instances apart from creation and conservation that are due to divine power alone, secondary causes are used as means for the conservation and causation of determined modes of being.

[101] *S. T. I,* 104, 2, 1m: "Deus immediate omnia creavit; sed in ipsa rerum creatione ordinem in rebus instituit, ut quaedam ab aliis dependerent per quae secundario conservarentur in esse; preasupposita tamen principali conservatione quae est ab ipso." Cf. *De Pot.* 5, 1, 2m.

and His own object of Thought.[102] But if in Aristotle there was any doubt of God's knowledge of things apart from Himself, there is absolutely none in St. Thomas. The divine essence, as indicated, is the only proper, adequate and primary object of God's thought. But far from precluding the cognition of anything distinct from Him, the perfect contemplation of the divine essence demands such a knowledge. For God would not perfectly know Himself unless there was contained therein the cognition of the infinite number of ways in which His perfection is imitable and capable of being shared in by others[103]—and this, not merely in a general way, but in every detailed particularization. As a matter of fact, it is this divine knowledge which, conjoined to the divine will, is the cause of the being of everything, corporeal substances as well as spiritual substances, matter as well as the universal forms singularized therein.[104] It is therefore the infinite intelligent Will or willing Intellect which has created beings and conserves them in existence.

Moreover divine Wisdom and Will have not merely created and conserved beings in their individuality but also ordain all things to their proper end. This direction of all things towards their end is the practical knowledge of God that goes by the name of providence. To it pertain the following two elements: (a) the order or plan itself disposing all things to each other and the universe to God in perfect hierarchical subordination and (b) (what follows from this plan) the all-pervading dirigeant activity of the divinity which carries this plan into execution. For precision of thought we can say that the former alone is providence, the latter, divine government,[105] the former is conceived eternally in the mind of God, the latter is exercised only with creation and therefore only in time.[106] A further distinction of the utmost importance between the two is that while the order or plan itself is something that derives from God's Wisdom and Will exclusively, He has in certain respects willed to make creatures His coadjutors in the execution of that plan.[107]

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[102] Cf. *S. T.* I, 14, 2, 3, 4, praesertim, 4c: " . . . in Deo intellectus, intelligens, et id quod intelligitur, et species intelligibilis, et ipsum intelligere sunt omnino unum et idem."

[103] *Ibid.* I, 14, 6c: " Non . . . Deus perfecte seipsum cognosceret, nisi cognosceret quomodocumque participabilis est ab aliis sua perfectio." In commenting upon the aristotelian statement that the divine essence alone is the perfection of the divine intellect, St. Thomas remarks: "Manifestum est autem quod nihil aliud sic potest intelligi a Deo, quod sit perfectio intellectus ejus. *Nec tamen sequitur quod omnia alia a se sint ei ignota; nam intelligendo se, intelligit omnia alia*" (*In XII Met.* 11, Cath. Edit., n. 2614).

[104] For God's knowledge of singulars see the following: *S. T.* I, 14, 11c; 44, 2c; *C. G.* I, 65; *De Verit.* 2, 5c; *Comp. Theol.* I, 134; *In I Sent.* 43, 2, 1c. For the causal character of God's willed knowledge, cf. *S. T.* I, 14, 8c; *De Verit.* 2, 14c, *C. G.* II, 24. See also *supra,* p. 181, n. 47 where the divine ideas were called operative forms.

As to the plan itself, it is all-embracing. There is nothing that can happen apart from divine prescience. For, were such a thing possible, then presumably there would exist *being* which is not God and which is not caused by God. And this being would either be *made known* to Him, or would escape His knowledge. Now all three conclusions are inacceptable. For, in the first place, as previously observed,[108] being is a proper effect of God alone. None but He can be its essential and principal cause since none but He is essentially subsistent being. In the second place, as further noted,[109] He is the cause of being through the divine intellect itself conjoined to His will. Consequently, in Him beings are not known because they *are*. On the contrary, they *are* because they are known and willed. The divine intellect does not depend upon existent beings for its knowledge of them, rather do they depend for existence upon the divine productive thought of them. Nothing therefore can make itself known to Him. Finally, nothing of real being whether actual or merely possible can be unknown to Him since actual being is the product of His willing intellect and possible being is radicated in His essence. Apart from real being there is *omnino nihil.* Whatever therefore partakes of real being is known by God. Consequently God must know, will and ordain everything down to the most minute detail.[110] Knowing singulars immediately in their finest particularisations He cannot but immediately determine the order that is to obtain within them and between them.[111] Everything therefore which has being in any way whatsoever must be subject to the ordination or providence of God.[112]

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[105] *S. T.* I, 22, 1, 2m: " . . . ad providentiae curam duo pertinent; scilicet ratio ordinis quae dicitur providentia et dispositio; et *executio ordinis,* quae dicitur gubernatio."

[106] *Ibid.*

[107] *C. G.* III, 77, Quod executio divinae providentiae fit mediantibus causis secundis. Cf. *S. T.* I, 22, 3c.

[108] *Supra,* pp. 274-275, 280.

[109] *Supra,* p. 181.

It may be said at this point that this all-inclusiveness of the divine ordination by no means precludes the possibility and actuality of evil (whether natural and physical or moral),[113] contingency,[114] free will,[115] or chance and fortune.[116] It would take one too far afield to explain each of these at length. Compactly capsuled, however, the thomistic doctrine is as follows. The ordination of God does not impose necessity upon everything that is willed,[117] nor in fact could it conveniently do so without diminishing and destroying much of the good and perfection of the universe. In the very plan itself of divine providence, provision is made for the activity of secondary causes that are defectible.

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[110] *S. T.* I, 103, 6c: " . . . oportet dicere, quod Deus omnium etiam minimorum particularium *rationem gubernationis* habeat.

[111] Cf. *C. G.* III, 76, Habet enim Deus: "Oportet . . . quod sicut (Deus) immediate singularia cognoscit, ita immediate eorum ordinem statuat." See also *De Verit.* 5, 4c.

[112] *S. T.* I, 22, 2c: "Causalitas Dei, qui est primum agens, se extendit usque ad omnia entia. . . . Unde necesse est omnia quae habent quocumque modo esse ordinata esse a Deo in finem . . . necesse est omnia, inquantum participant esse, intantum subdi divinae providentiae."

[113] Cf. *C. G.* III, 71. For a discussion of evil in general in respect to divine providence and the will of God see *S. T.* I, 19, 9c; *In I Sent.* 46, 1, 4c; *Comp. Theol.* I, 142, 143. For the relation of moral evil or sin (as an entity and as a defect) to the divine will see: *S. T.* I-II, 79, 2c; I, 49, 2, 2m; *De Pot.* 3, 6c; *De Malo,* 3, 2c; *In II Sent.* 37, 1, 1c.

[114] Cf. *C. G.* III, 72; *Comp. Theol.* I, 141.

[115] Cf. .*C. G.* III, 73.

[116] Cf. *C. G.* III, 74.

[117] Cf. *S. T.* I, 19, 8c; 22, 4c.

The perfection of the universe congruently calls for the existence of all grades of being, otherwise no creature would resemble God in being more than another.[118] Hence it pertains to the divine providence to produce these grades. For certain effects therefore God prepared necessary causes so that they would come about necessarily; for others He provided contingent causes so that they would happen contingently.[119] Now the very presence of contingent causes in the divine plan and indeed in the execution of that plan allows for the possibility and actuality of evil, freedom, chance and fortune.

Thus, contingent causes are of two kinds, *natural* (such as act by potencies determined to one) and *voluntary* (such as are not limited to one effect but have within themselves rational potencies which can produce this or that effect indifferently). The natural contingent cause is determined by a necessity of nature to produce one thing, to act in one way, but its contingency lies in the fact that its attainment of the end to which it naturally tends may be impeded either by a defect in its own active virtue or by some

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rentur, nisi esset ordo bonitatis in eis, ut, sc. quaedum sint aliis meliora; non enim implerentur omnes gradus possibiles bonitatis neque etiam aliqua creatura Deo assimilaretur quantum ad hoc quod alteri emineret." Cf. *De Pot.* 3, 16 post medium.

[118] Cf. *C. G.* III, 71, Amplius: "Perfecta bonitas in rebus non inveni-

[119] *S. T.* I, 22, 4c: "Post bonitatem autem divinam, quae est finis a rebus separatus, principale bonum in ipsis rebus existens est perfectio universi; quae quodem non esset si non omnes gradus essendi invenirentur in rebus. Unde ad divinam providentiam pertinet omnes gradus entium producere. Et ideo quibus dam effectibus praeparavit causas necessarias, ut necessario evenirent; quibusdam vero causas contingentes, ut evenirent contingenter . . . " Cf. *ibid.* I, 19, 8c. In the latter reference St. Thomas notes that in the last analysis contingent effects do not exist because there are contingent causes but rather, there *are* contingent causes *because* God willed contingent effects. The distinction is subtle but justified for the contrary interpretation (viz. that God produced some contingent causes and therefore contingent effects take place) would seem to make (a) the effects of the First Cause dependent on secondary causes as to whether or not they shall be necessary or contingent and (b) the occurrence of contingent effects accidental to God's will and somewhat unintentional. Cf. *De Verit.* 23, 5c; *Quodlibet,* 11, 3, 3c.

exterior agent or by the indisposition of matter on which it acts. The contingency of such causes is from the imperfection and deficiency of their being.[120] The contingency of voluntary or free causes on the other hand is not due to an imperfection but rather derives from that very perfection by which a created cause is most assimilated to the divinity, viz., freedom of action.[121]

Now the existence of such natural and voluntary defectible causes is indicative of the fact that God's plan calls for an order of things in which both physical and moral evil is possible. Were neither of these possible, in other words, were everything absolutely and rigidly determined, much more good, perfection and beauty would be lost to the world than would be preserved in it by determinism. In the first place if evil were forcefully and totally eradicated, things would no longer be ruled by divine providence according to their natures and this would be a much more egregious defect than would be the singular defects that would be eliminated.[122] Moreover if defectibility were removed from natural contingent beings by an imposed necessitation, all beings would exist necessarily none would be corruptible; consequently neither generation nor motion would have place, since the generation of one thing entails the corruption of another and motion is but a process in which one thing begins to be where another has ceased.[123] Furthermore, man, to whom, as St. Thomas says, other things and especially inferior beings are ordained as to their end,[124] would notably suffer the loss of many goods through subjection to despotic necessity. While such necessity to be sure would remove the evil of sin it would concomitantly destroy freedom, the noblest largesse of divinity to mankind. Man's actions would be in no way superior to other beings'. Of what use counsel, circumspection in action if man were necessitated?[125] With the destruction of freedom would go praise for human virtue, justice in reward and punishment.[126] Where for instance would be the nobility in courage if cowardice were not possible? Why the palm of martyrdom unless a few grains of incense in the lap of the gods could have won a life of ease and affluence? Then too, were there no evil in things, man would lose much in his cognition and appetition of the good, since good, both physical and moral, is better known, more deeply appreciated, more intensely sought by comparison with evil.[127] Thus men would scarcely realize nor value the boon of health, unless the bane of sickness were a reality. (Evidence of this is the fact that the sick much more than they that are well esteem and desire health.)[128] Men would scarcely exercise patience unless put to the test by human opposition, charity, unless confronted with destitution, impoverishment and need. Finally, while evil cannot essentially contribute to the perfection and beauty of the universe,[129] nevertheless, accidentally, by its shadings and nuances, the beauty of the good is highlighted and thus emphasized, the divine goodness more adequately revealed therein and the divine wisdom more luminously manifested in its ordination of evil to the good.[130]

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[120] Cf. *C. G.* III, 73, Cujuslibet: "In rebus autem inanimatis, causarum contingentia ex imperfectione et defectu est; secundum enim suam naturam sunt determinatae ad unum effectum, quem semper consequuntur, nisi sit impedimentum, vel ex debilitate virtutis, vel ex aliquo exteriori agente, vel ex materiae indispositione."

[121] *Ibd.* : "Quod autem voluntas sit causa contingens ex ipsius perfectione provenit, quia non habet virtutem limitatam ad unum, sed habet in potestate producere hunc effectum vel illud, propter quod est contingens ad utrumlibet." *Ibid.,* Item: "Agens . . . voluntarium assequitur divinam, similitudinem in hoc quod libere agit."

[122] Cf. *Comp. Theol.* I, 143: "Si . . . malum totaliter excluderetur a rebus, providentia divina non regerentur res secundum earum naturam; quod esset major defectus quam singulares defectus qui tollerentur."

[123] Cf. *C. G.* III, 73, Praeterea, Quod; *Ibid. Adhuc,* In

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[124] *C. G.* III, 71, Adjuc: "Res aliae, et praecipue inferiores, ad bonum hominis ordinantur sicut ad finem."

[125] *Ibid.* III, 73,Adhuc: Si libertas tolleretur . . . cessaret etiam circumspectio in consiliis quae de his quae ex necessitate aguntur frustra tractarentur."

[126] *Ibid.,* ". . . tolleretur laus virtutis humanae quae nulla est si homo libere non agat; tolleretur etiam justitia praemiantis et punientis si non libere homo ageret bonum vel malum."

[127] *Ibid.* III, 71, Adhuc Res: "Si . . . nulla mala essent in rebus, multum de bono hominis diminueretur, et quantum ad cognitionem, et quantam ad boni desiderium vel amorem; nam bonum ex comparatione mali magis cognoscitur, et, dum aliqua mala perpetrantur, ardentius bona optamus . . ."

[128] *Ibid.*: ". . . quantum bonum sit sanitas, infirmi maxime cognoscunt, qui etiam ad eam magis exardent quam sani."

[129] Cf. *In I Sent.* 46, 1, 3c.

Here then, sketchily delineated are some of St. Thomas' reasons for affirming that evil, freedom, contingency, chance and fortune come under the divine providence and could not very well be excluded without diminishing and destroying much of the good and perfection and beauty of the universe.

C. DIVINE MOTION OR "PREMOTION"[131]

Contemporaneous with the creation of the universe is the inception of the temporal execution of God's eternal plan, the actual government of everything to its end. In that actual execution, God willed to associate with Himself, creatures whom He dignified and assimilated to Himself by the power of causation.[132] Such a conferring of causal power on created beings in the execution of the divine plan is not to be attributed to any deficiency on the part of God, any inability to execute this plan alone; rather is it due to the overflowing of divine bounty.[133] Out of the immensity of that goodness, He willed to communicate to creatures His likeness not only as to being but as to being causes of others.[134]

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[130] *Comp. Theol.* I, 143: ". . . ex ipsis malis particularibus commendabiliora redduntur bona dum eis comparantur, sicut ex obscuritate nigri magis declaratur claritas albi; et sic per hoc quod permittit mala esse in mundo, divina bonitas magis declaratur in bonis et sapientia in ordinatione malorum ad bona.

[131] St. Thomas' doctrine on divine motion in the world has unwittingly been the occasion of a furore of controversy within scholastic circles down to the present day. The centuries-long dispute between Thomists and Suarezians, Bannezianists and Molinists will not be touched upon here save where it may be necessary to ascertain for certain the thomistic position or to vindicate it against evident misconstruction or misunderstanding. In what is here presented we do not hope to settle the old dispute concerning "physica praemotio" and "simultaneus concursus", nor do we expect to reopen it. It is our desire simply to reaffirm in general what appears most probably to have the doctrine of St. Thomas in an objective historical setting, that is to say, as an extension, purification and synthesis of previous thought, chiefly aristotelian and motekallemian. It is interesting to note, however, as Garrigou-Lagrange points out, that the key word used by those who profess to follow St. Thomas and represent his mind, viz., "premotion" was never used by the Angelic Doctor himself for the most obvious reason that it is tautological. It was introduced into traditional terminology simply to offset it against the suarresian and molinist theory of "simultaneous concurrence", and for this reason has acquired justification. The word "physical" was added to it to distinguish it from "moral" causality. Cf. Garrigou-Lagrange, *God: His Existence and His Nature,* trans. by Dom Bede Rose, Herder, St. Louis, 1936, Vol. II, p. 152, ftn. 85. The precise meaning, it is hoped will be brought out as we go along.

Now, just as finite being cannot exist without God as its first cause and just as it cannot be conserved in *being* if God's action were to cease, so it cannot cause *being* unless God operates in it. The reason for this is that "being (existence) is the common effect of all agents since each agent makes something *be in act*."[135] But since actual being is a proper effect of God alone, it follows that all agents which have this in common, that they produce that which is a proper effect of God, must do so inasmuch as they are ordained under the prime agency of God and act by His virtue.[136] Consequently St. Thomas says that in every operation of nature or of creature God operates. Nothing can be more expressive of the all-inclusiveness of the divine action.

In four ways, the Angelic Doctor maintains, God operates in every creature-action. Two of these modes are mediate, two immediate.

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[132] For the present, the truth of creature-causation is assumed in order that the extent of divine causality may further be revealed. The thomistic vindication of this shall be presented later. See *infra,* pp. 308-316.

[133] *S. T.* I, 22, 3c: ". . . inferiora gubernat per superiora, non propter defectum suae virtutis sed propter abundantiam suae bonitatis; ut dignitatem causalitatis etiam creaturis communicet." Cf. *In II Sent.* 1, 1, 4, 1m.

[134] *C. G.* III, 70, Patet, etiam: "Deus . . . ex immensitate bonitatis ipsius . . . suam similitudinem rebus communicare voluit, non solum quantum ad hoc quod essent, sed etiam quantum ad hoc quod aliorum causae essent . . ."

[135] *C. G.* III, 66, Amplius: "Quum . . . esse sit communis effectus omnium agentium (nam omne agens facit esse actu) . . ."

[136] *Ibid.*: ". . . oportet quod hunc effectum (i.e. esse actu) producant (i.e. omnia agentia) in quantum ordinantur sub primo agente et agunt in virtute ipsius.

a. *Mediate*

1. God is the cause of all the actions of creatures since He gives to them the virtues whereby they can act. As that which generates the heavy and the light, is said to move them respectively downwards and upwards by giving them, this gravid or volant quality, so God who is the cause of the virtues by which secondary agents act is said to be the cause of all their action,

2. He is the cause of the actions of each created agent by conserving their powers in existence. For whatever conserves a virtue in being is said to be the cause of the action of that virtue as medicines that preserve sight are said to make one see.

b. *Immediate*

3. He moves and applies the powers of finite things to action as man applies the sharpness of the knife to cutting. Such application of powers is necessary for there is no finite agent which is *per se* primarily in act, since there is no such agent which does not move (another) without being moved itself. And since an infinite series of moved movers is impossible one must arrive at a first mover that is unmoved and by whom all other inferior beings act.

4. He is finally the cause of the action of every created agent, inasmuch as it is only by His virtue that the virtue of any other agent acts or—what is equivalent to this—inasmuch as each agent is an instrument of the divine virtue operating. The reason for this becomes presently clear. No secondary agent by reason of its own virtue has competency over the effect of a prime cause. If therefore it somehow attains the effect of the prime cause it is only to the extent that, as instrument,[137] it shares in

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[137] The word instrument is not taken here in its *strictly proper sense* as applying to "that which is so moved by another that it does not receive from the moving cause a principle of such motion so as to move itself actively (as, e.g. the saw that is moved by the carpenter, and in fact any inanimate being); rather is it taken in its more common acceptation so that it applies to anything that moves another by being moved, and thereby attains an effect beyond its own powers. Thus living beings and even free beings may be said to be instruments of God. Cf. *De Verit.* 24, 1, 5m.

something of the virtue of the prime cause, i. e. in not only being moved by it, but in being elevated to an effect which is beyond its own proper powers. This is so in the production of being which in no way is proper to created causes. Their attainment of it must consequently be due to their instrumental action.[138]

The first two modes may be summarily dismissed as being already contained by implication in what has been said of creation and conservation. It need only be remarked that these modes whereby God causes mediately the actions of secondary causes are not really distinct for it is just as in the production and conservation of substantial being: the operation of God whereby He is the cause of the conferring of a power of action is not other than the operation whereby He conserves that power in being.[139]

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[138] These four modes of divine motion are set forth in detail in *De Potentia* (3, 7c, p. Sciendum namque est.) A succinct summary is present at the conclusion of the corpus. It is this passage and especially that wherein the fourth mode is described which is cited by Thomists as proof positive that St. Thomas insisted upon the necessity of a prior (in nature) divine motion for every creature action. Suarez, who felt the force of its meaning, discounted its value, for he asserted that St. Thomas tacitly retracted the statement by enumerating only the first three modes in his later works such as the *Summa Theologica* (I, 105, 5c) and the *Contra Gentiles* (III, 70). See Suarez, *Omnia Opera,* Vol. XI, Op. 1, lib. 1, De Concursu Dei cum voluntate, c. 11, n. 4ff and Vol. XXV, Disp. Met. I, d, 22, s. 2, n. 52. The position of the eminent Jesuit seems to be untenable in view of the refutation by P. F. A. M. Dummermuth, O.P., *S. Thomas et Doctrina Praemotionis Physicae,* Paris, Ephemerides "L'Année Dominicaine", 1886, pp. 56 ff. More recent Jesuits concede that St. Thomas affirmed these four modes without vacillation throughout life, though they strive to interpret the fourth mode as favorable to the doctrine of "concursus simultaneus". Cf. Chr. Pesch, S.J., *Praelectiones Dogmaticae,* edit. 4, Friburgi, Brisgoviae, Herder, 1914, vol. III, pp. 49 ff. Still others admit that the third and fourth mode clearly prove that God moves all things by a concursus that is not merely simultaneous, but actually physical and prior to the action or motion of secondary causes. They differ with the thomistic School, however, in affirming that this physical premotion—at least for free causes—is not and cannot be predetermining to one. See Vincentio Remer, S.J., *Summa Philosophiae Scholasticae,* vol. VI, Theologia Naturalis, Rome, Aedes Univ. Gregorianae, 1931, 222 ff.

[139] Cf. *De Pot.* 5, 1, 2m. *Supra,* p. 283.

It is the latter two modes which are more engrossing for our present purposes. How, in the first place, can either of these be called *immediate modes* of operation when in both cases the finite cause or causes act as a medium between God and the particular effect wherein they are used? How further are they distinguished, one from the other?

We have had occasion to remark[140] before that a being may operate immediately in two ways, viz., by an immediacy of supposit and by an immediacy of virtue, for in every agent it is possible to distinguish the supposit which acts and the virtue by which it acts. A being acts by an immediacy of supposit when, between the agent and the effect, there is no subordinate cause which assumes the role of a co-agent. On the other hand a cause acts with an immediacy of virtue when it stands in need of no other virtue for it to be conjoined to its effect. Now it is a general rule that the higher the virtue the more immediatly does it act: on the contrary, the higher the supposit the less immediately does it act. Bearing this in mind, it is clear that secondary agents may act by an immediacy of supposit upon their effects when no supposit intervenes between them and the subjects of their action.[141] God on the contrary acts by an immediacy of virtue in everything that acts since no inferior virtue is conjoined to its effect save by the virtue of a superior agent and ultimately by His own virtue. Consequently His influence is prior to, as well as more immediate, more intimate, and more vigorous than that of any secondary cause, however active or however proximate its supposit may be to the effect.[142] Now while it is the general rule, borne out in the experience of all natural causes that when a subordinate supposit intervenes instrumentally between a superior more virtuous cause and its proper effect, the higher cause is *ipso facto* excluded from the possibility of acting with suppositai immediacy (though it always acts with more virtual immediacy than the inferior cause), an exception must be made for the activity of God. For while God operates with an immediacy of virtue in everything, He is at the same time suppositally present and immediately immanent in everything wherein He acts, since His virtue is not other than His essence.[143]

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[140] *Supra.,* p 218 and p. 284, n. 100.

[141] *De Pot.* 3, 7c, ad fi.: ". . . si consideremus *supposita* agentia, quodlibet agens particulare est immediatum ad suum effectum."

[142] *Ibid.*: "Si autem consideremus virtutem qua fit actio, sic virtus superioris causae erit immediatior effectui quam virtus inferioris; nam virtus inferior non conjungitur effectui nisi per virtutem superiois; unde . . . virtus causae primae prius agit in causatum, et vehementius ingreditur in ipsum." Cf. *De Verit,* 5, 9, 10m; *In II Sent.* 1, 1, 4c, fi.

Certain authors have betrayed a misunderstanding of the thomistic doctrine regarding the immediacy of action by affirming that it contains a definite denial and exclusion of the doctrine of "previous motion" in the sense of "physical predetermination". For, it is argued, if God were to concur in the effecting of something by the production of some physical entity which would move a secondary cause to act, far from acting more immediately, He would not even be acting as immediately as the creature which would produce the effect. And yet, it is evident from St. Thomas that "the *virtue of a superior cause is more* immediate to its effect than that of an inferior cause".[144] Consequently—the conclusion is drawn—such a physical intermediary (premotion or physical predetermination) is not to be admitted in every operation of creatures.[145] The error in this argument lay in the supposition that by a physical premotion which would apply the creature's power to act and move it instrumentally, God's virtue would thereby be rendered less immediate or—what is the same—more removed from the effect than the action of the secondary cause. The description of virtual immediacy clearly shows this to be false. It is not God's virtue that acts by *means* of the virtue of secondary agents,—but it is always and everywhere the virtue of secondary agents which act *by means of and only in virtue of the Prime Agent.* God's virtue is therefore more immediate and would be more immediate no matter by however so many the instruments might be multiplied. The immediacy of the divine supposit follows, once it is understood that God's essence is His virtue.

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[143] *Ibid.* Contrasting the operation of the heavenly bodies with the divine operation St. Thomas points out the analogy. They are similar in that both operate by an immediacy of virtue, the heavenly bodies upon all elementary active bodies, the divine virtue, however, on every agent without exception. They differ in that the divine essence is wherever the divine virtue is, immediately. Not so with the heavenly bodies. They are suppositally removed from where they virtually act. The reason for the difference of course is that nothing but God can be its own virtue. Consequently, not only is the divine *virtue* more immediate, than any other power, to everything else, but also—since God is His own virtue—the divine *essence* is immediately present to all things. See also *In I Sent.* 37, 1, 1, 4m.

[144] *Loc. cit.*

[145] Chr. Pesch, S.J., *op. cit.,* vol. III, pp. 52-52: "Neque vero motio divina eo sensu est prior, quasi Deus entitatem aliquam physicam in creatura producat, quae dein sit causa operationis creaturae. Quod non solum S. Thomas non docet, sed etiam excludit; nam dicit: 'Virtus superioris causae est immediatior effectui quam virtus inferioris.' Atqui si Deus mediante

It follows as a corollary from this doctrine of the twofold kinds of immediacy that one and the same effect, without any inconvenience whatsoever, may flow from two causes and from both immediately, though in a different manner. From the secondary cause it is produced with suppositral immediacy alone; from the Prime Cause, it is produced with virtual and—by natural concomitance of the essence with its virtue—by suppositral immediacy.[146]

Having seen now how both the third and fourth mode of divine motion merit the description "immediate", it is asked how and in what do they differ? Is the application of a power different from its being moved as an instrument? The answer to this is found in the two formalities that may be distinguished in every effect of a secondary cause, as indeed, of everything that is used as an instrument to produce another. Dummermuth[147] has well expressed the thomistic position in the following manner.

One formality of the effect is that which is attributable to the

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aliqua entitate physica concurreret ad effectum, non immediatius, immo ne aeque quidem immediate atque creatura produceret hunc effectum. Ergo tale ens physicum intermedium (praemotio vel praedeterminatio physica) non est in omni actione creaturae admittendum . . ."

[146] Cf. *C. G.* III, 70, In quolibet enim: ". . . non est inconveniens quod producatur idem effectus ab inferiori agente et a Deo, ab utroque immediate, licet alio et alio modo."

[147] *Op. cit.,* pp. 36, 38.

second cause by reason of a proper virtue permanently conferred and possessed by it. The other formality, however, is not due to the secondary cause by reason of its own virtue but rather by virtue of an influx transitorily shared by it and communicated to it by the superior cause to whom it is subject, viz., God. By reason of the first formality, the effect is of such and such a determined character and nature. By reason of the second, however, it has being, existence. Because of the first formality the secondary cause is called a principal cause in its own order (of secondary causes) ; it acts *per se* (*though not per se solum,* since it will always need the prior action of God in order to produce even its own proper effect) ; its action is therefore proper to it. Because of the second formality, it is called an instrumental cause, has instrumental action and attains its effect (beyond its proper competency), by virtue of another. Now to elicit its own proper action (i. e. that which belongs to it by reason of a permanent form inhering in it) it simply needs to be moved by God and applied to act. In order, however, that it may act instrumentally, it is necessary, moreover, that it share in something of the superior agent's virtue, if it is to attain the effect proper to the latter. Since however, as was pointed out,[148] every creature in its action, always attains the common attribute of being (existence) which is proper to God alone, it follows that God is the cause of the action of every secondary agent, not only by moving and applying to act its permanent created virtue but also by employing it as an instrument and elevating it to attain the effect within His own proper competency. *Application* then primarily refers to the movement of the *proper virtue* of a creature. *Being moved qua instrument,* however, is precisely that formality of the creature-action whereby it transcends its own proper capabilities.[149]

It should be forthwith observed that in distinguishing these two modes, Aquinas had no intention of conveying the impression that two distinct previous motions were required in order that God may move a creature-cause to produce an effect—one motion whereby He applies its proper virtue and a distinct motion whereby He moves it instrumentally. On the contrary, just as the lines drawn on a paper (proper effect of a lead pencil) and these same lines configurated into an image (instrumental effect of the same pencil) are produced by one and the same motion of the artist, so too the production of an existent (instrumental effect of a creature-cause) and the production of an existent of a determined nature (proper effect of the same creature-cause) are produced by one and the same motion of the prime cause, God. It is not therefore two distinct entities which are impressed on the secondary agent, but one entity alone which may, however, be viewed under a two-fold aspect. To the extent that this motion is an application, strictly speaking, of a permanent virtue within the inferior cause, God is simply the cause (in His order) of that effect which is proper to the secondary cause. In the measure, however, that this motion is a transitory participation in a superior virtue, God brings it about that the inferior agent attains an effect which is proper to Himself. He perfects both formalities always by one and the same virtual motion.[150]

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[148] *Supra,* p. 293.

[149] For the more explicit expression of the twofold virtue and action of an instrumental cause see the following: *S. T.* III, 62, 1, 2m; *De Verit.* 27, 4c.

Though it is by one motion that God applies the virtue of the secondary agent to act and elevates it so that it can attain the existence of its effect, it is clear that the finite cause acts at all times by two virtues, viz., its own proper virtue and this imparted instrumental virtue. The first is present in it as a form having permanent and fixed being. The second, however, is not something stable and abiding but a virtue transitorily impressed having incomplete being. St. Thomas calls this an *intentio*—a word frequently used in his earlier works to designate and describe the passing power whereby a being acts in an instrumental capacity.[151] The former virtue gives the natural cause a resident *power*

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[150] Dummermuth, *op. cit.*, p. 74.

[151] Cf. H. D. Simonin, "La Notion d'Intentio'", *Revue des Sciences Philosophiques et Théologiques,* vol. XIX, 1930, praesertim, Pt. II, "'Intentio' comme synonyme de motion instrumentale", pp. 448-451. The author affirms that this usage of the word is well attested to in passages where

of acting. The intentional virtue, divinely bestowed, however, is that by which it *actually operates* and, indeed, operates "towards being as an instrument of the prime cause." [152] Just as an axe can be given its sharpness as a permanent virtue, but not the "vis artis" unless—*per impossibile*—it were to have an intellect, so, a natural being can be given its own proper virtue as a permanent form but not the instrumental virtue whereby it acts towards the *being* of its effect, unless—again *per impossibile*—it could be made the universal principle of being. Consequently, St. Thomas concludes, no natural being can be given the power of operating apart from the divine operation.[153]

From what has been said thus far it is clear that all finite causes depend immediately on this imparted motion for their actual operations. One must observe that there is no reason for excluding voluntary or free causes from this universal law. The primacy of divine causality can suffer no exception. Unconditional are the statements that in any ordered series of causes, "the secondary agent *always* acts in virtue of the prime agent", that "the prime agent *moves* the second to act", that *"all* act in virtue of God Himself", that "He is the cause of *all* the actions of (other) agents." [154] Not content with these general expressions, St. Thomas explicitly affirms many times that voluntary

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the Angelic Doctor establishes "ex professo" his doctrine of instrumental causality (*In IV Sent.* 1, 1, 4; q. 2c and q. 4c; *De Verit.* 27, 4, 4m; 7c; *De Pot.* 5, 1, 6m; 5, 6, 4c). He calls the instrumental virtue "intentio", because, like the "intentiones" of the mind (the notes that the mind grasps of real being) it has only imperfect being or existence. It is interesting to note that the De Potentia (written about 1263) was the last of Thomas' works in which the word is used in this sense to designate instrumental virtue or action.

[152] *De Pot.* 3, 7, 7m: Id quod a Deo fit in re naturali, quo actualiter agat, est ut intentio sola, habens esse quoddam incompletum . . . vis qua agit ad esse ut instrumentum primae causae."

[153] *Ibid.*: ". . . rei naturali conferri non potest quod operaretur absque operatione divina."

[154] *S. T.* I, 105, 5c: "Considerandum est quod, si sint multa agentia ordinata, *semper* secundum agens agit in virtute primi agentis . . . primum agens *movet* secundum ad agendum . . . omnia agunt in virtute ipsius Dei . . . et ipse est causa *omnium* actionum agentium."

causes are not exempt from the necessity of being moved by God.[155] "No nature" he says, "whether *corporeal or spiritual,* however perfect it may be, can proceed to its act, unless moved thereto by God." [156] He is "the prime cause who moves both natural and voluntary causes." [157] If there is nothing that can act by its own virtue unless it act in virtue of God it follows that "man (himself) cannot use the faculty of will that is bestowed on him except he do so by the power of God". And if God is the being in virtue of whom the free agent acts then He is "the cause not only of the virtue but of the act itself." In other words He is "the cause not only of the will but of the willing",[158] and this motion is not merely towards willing in general but it is towards the being of each individual determinate will-act.

Sufficient has been said thus far to warrant the assertion that the divine action which applies the virtues of both natural and voluntary causes and at the same time moves them instrumentally must be regarded as a *physical premotion* actually and necessarily imposed in the single operation of each. There is no other way in which the thomistic position can be reasonably interpreted. The texts thus far cited indicate without exception that the motion of the first cause is an indispensable *prerequisite* for creature-action, that this motion invariably bears upon the actual exercise of conferred powers. Consequently it is motion that is both previous (by an anteriority of nature and causality)[159] and physical

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[155] *De Pot,* 3, 7c (fin): ". . . ipse (Deus) in quolibet operante immediate operatur, non exclusa operatione voluntatis et naturae."

[156] *S. T.* I-II, 109, 1c: "Quantumcumque natura aliqua corporalis vel spiritualis ponatur perfecta, non potest in suum actum procedere nisi moveatur a Deo . . ."

[157] *S. T.* I, 83, 1, 3m: "Deus est prima causa movens et naturales causas et voluntarias . . ."

[158] *C. G.* III, 89, Item: "Deus non solum dat rebus virtutem sed etiam nulla res potest propria virtute agere, nisi agat in virtute ipsuis . . . Ergo homo non potest virtute voluntatis sibi data uti, nisi in quantum agit in virtute Dei. Illud in cujus virtute agens agit est causa, non solum virtutis, sed etiam actus . . . Deus igitur est causa nobis non solum voluntatis, sed etiam volendi." *Ibid.,* III, 91, Patet, etiam.

[159] *C. G.* III, 149, Quaelibet enim: "Motio moventis praecedit motum mobilis, ratione et causa."

(as opposed to moral.)

But over and above this it seems necessary to say that this motion is—one hesitates to use the word—a *predetermination.* Actually in operating in the actions of creatures God modifies them, that is to say, imposes a mode on them,[160] and in St. Thomas' opinion a mode is nothing less than a determination coming to a being.[161] We have seen that God does this in four ways. By the first two modes of God's operation in creature-action He remotely determines the nature of action to the extent that He confers and sustains in being powers or virtues of a specific kind. By the last two modes however He proximately and immediately determines the application and elevation of these already determinate virtues to similarly determined operations here and now elicited. This is why St. Thomas can say that *"all effects,* of whatever nature be their proximate cause (that is to say regardless of whether they be necessary of free) are *determined* in their prime cause (God) who . . . in His providnce has imposed a mode upon all",[162] that, "all the actions of other agents are modified by the action of the prime agent",[163] that this is done effectively by God.[164]

Nevertheless the determination is one that operates in accordance with the nature of each.[165] By reason of the sovereign efficacity of the divine will God is able to realize not only what He wills but this, in the very manner in which He wills it, i. e. either necessarily or contingently and freely.[166] It is clear that

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[160] De Pot, 3, 4c: "Cum omnes secundae causae agentes a primo agente habeant hoc ipsum quod agant, oportet quod a primo agente omnibus secundis agentibus modus et ordo imponatur . . . "

[161] *De Propositionibus Modalibus, Opusc.* XLVI. Vivès, vol. XXVII, p. 549 a: "(Modus) est determinatio adjacens rei."

[162] *De Verit.* 8, 12c: "Omnes . . . hujusmodi effectus, qualescumque sint eorum causae proximae causae, tamen in causa prima omnes sunt determinati, quae . . . sua providentia omnibus modum imponit."

[163] *In III Sent.* 23, 3, 1, sol. 1.

[164] *In I sent.* 3, 2, 3, 3m

[165] *S. T.* I-II, 10, 4c: "Omnia movet (Deus) secundum eorum conditionem." Cf. *Ibid.* 113, 3c; *De Malo,* 6, 1, 3m.

[166] *S. T.* I, 19, 8c; *De Verit,* 23, 35c

He moves and therefore determines both natural and voluntary causes. "And just as in moving natural causes, He does not prevent their actions from being natural, so in moving voluntary causes He does not take from them their voluntary character but rather brings this about in them" that they act freely.[167] The will is a free faculty and, as St. Thomas affirms, has "dominion over its own act so that is it not determined to one or another part of a contradiction."[168] This dominion which the will has over its acts excludes indeed a necessary determination to one thing such as is imposed by God upon the virtues of natural causes.[169] Nevertheless it is not such as can exclude the operation, motion and determination of the first cause.[170] As Dummermuth well expresses it:

> "St. Thomas repeats time and again that the will has dominion over its act for this reason only, that it freely moves itself and determines itself to act, because it is in its power to will or not will, to will this or that. If, how-

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[167] *S. T.* I, 83, 1, 3m: ". . . Et sicut naturalibus causis movendo eas, (Deus) non aufert quin actus earum sint naturales; ita movendo causas voluntarias, non aufert quin actiones earum sint voluntariae, sed potius hoc in eis facit."

[168] *De Pot.* 3, 7, 12m.

[169] *De Pot.* 3, 7, 13m: ". . . causa prima non ita agit in voluntate ut eam de necessitate ad unum determinet sicut determinat naturam." The qualifying phrase "sicut determinat naturam" is extremely important. Some have felt that because the will is not determined to one thing "ex necessitate", therefore all "determinatio ad unum" is excluded as far as human freedom is concerned. This does not follow from this text, nor any other in fact. St. Thomas does not say that God in no way determines the will to one thing, but rather, keeping liberty intact, He does not determine it to one *as He determines natural causes to one, i. e. by a determination "ex necessitate," a determination that is imposed upon the virtues themselves of natural causes even prior to any action or any application to action.* The will is not so determined precisely because it is within its power to act or not to act in this way or in that. Even when it is acting in a determined way, it is conscious of its power to act in another way or not to act at all. Cf. Garrigou-Lagrange, "Prédétermination non necessitante", Revue de Phil., XXXIII (1926), pp. 379-399, 423-433, 659-670.

[170] *Ibid.:* "Voluntas dicitur habere dominium sui actus non per exclusionem causae primae."

> ever, it were to move and determine itself independently of God moving and determining it, if independently of Him it were in its power to will and not will, to will this or that, then it would have dominion over its act to the exclusion of the first cause."[171]

He immediately adds that one cannot escape this conclusion by conceding that the will cannot act unless God simultaneously concurs with its action or previously moves it to good in general for it would still mean that the will's *particular determination* of the act is made independently of God since neither a simultaneous concursus nor a motion to universal good imposes or causes such a determination. This determination, therefore, it would have from itself and not from God. It would thus retain a dominion over its act to the exclusion of the prime cause—an evident infringement of divine prerogatives in that something of *being* escapes the causality of God.

To synopsize the thomistic thought of this point—the will is free because it is a cause of its own movement. Man by his free will moves himself to act. But it is not of the essence of liberty that the free being be the *first cause* of its movement just as, to cause something else, one need not be the first cause.[172] Consequently "when something moves itself it is not thereby prevented from being moved by that from which it has the power of moving itself; thus it is not repugnant to liberty that God is cause of free choice."[173] He operates in the will as He does in nature.

> "Hence just as *every natural action* is from God, so *every action of the will,* inasmuch as it is an action,[174]

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[171] Dummermuth, *S. Thom. et Doctrina Praemot Physic.,* p. 46.

[172] *S. T.* I, 83, 1, 3m.

[173] *De Malo,* 3, 2, 4m: ". . . cum aliquid movet se ipsum, non excluditur quin ab alio moveatur, a quo habet hoc ipsum quod se ipsum movet; et sic non repugnat libertati quod Deus est causa actus liberi arbitrii."

[174] This qualifying phrase excludes therefore the defects and inordination of a sinful act because sin, precisely as a defect and deordination has no entity. Rather is it a privation, a non-being whose deficiency of being is due to the free will. Nevertheless, whatever of entity there is in the act of sin is caused by God. Cf. *S. T.* I-II, 79, 2c; *De Malo,* 3, 2c.

> is not only from the will as an immediate agent but also from God as from the prime agent whose influence is impressed (upon the action of the will) even more intensely (than the virtue of the will itself)".[175]

The free agent invariably wills precisely what God moves it to will,[176] and cannot conceivably not will this, in the supposition that God moves it.[177] Nevertheless God is not thereby a "causa cogens (seu necessitans)".[178] The will acts without violence, without contraint, unfailingly, infallibly yet always freely, since it falls within the divine providence and comes about by reason of the transcendent efficacity of the divine will not only that this effect should take place but that it should take place freely.[179] None of man's actions are "subject to the divine determination as if they were necessitated by it.." [180]

Before we conclude this treatment of God's efficiency and pass on to an "ex professo" consideration of creature causality a final point may be briefly touched upon—the question of the limitation or determination of the divine motion in secondary causes. Thus far it has been seen that it is God who modifies and determines efficiently the actions of all beings, while He Himself and His active essence suffers neither modification nor determination. Nevertheless the manifestation of divine virtue is evidently modified in creatures. The Angelic Doctor himself clearly says that "although the prime cause exerts the greatest of influence upon an effect, neverthless its influence is determined and specified through the (effect's) proximate cause.[181] Again, secondary agents "as it were particularize and determine the action of the prime agent.[182]

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[175] *De Verit.* 22, 8c: "Deus . . . ipse in voluntate operatur sicut in natura; unde, sicut omnis actio naturalis est a Deo, ita omnis actio voluntatis inquantum est actio, non solum est a voluntate ut immediaee agente, sed a Deo ut a primo agents, qui vehementius imprimit . . ."

[176] *C. G.* III, 92, Rursus, Attendenda: ". . . semper tamen hoc homo eligit quod Deus operatur in ejus voluntate."

[177] *S. T. I-II,* 10, 4, 3m: ". . . si Deus movet voluntatem ad aliquid incompossibile est huic positioni quod voluntas ad illud non moveatur . . ."

[178] *De Pot.* 3, 7, 14m: ". . . non quaelibet causa excludit libertatem sed solum causa cogens; sic autem Deus non est causa operationis nostrae."

[179] *De Malo,* 6 unic, 3m; "Deus movet quidem voluntatem immutabiliter propter efficaciam virtutis moventis quae deficere non potest; sed propter naturam voluntatis motae, quae indifferenter se habet ad diversa non inducitur necessitas sed manet libertas . . . inquantum Deus omnia movet proportionabiliter unumquodque secundum suum modum." *C. G.* III, 94 Deinceps autem (fin.): "Cadit . . . sub ordine divinae providentiae non solum hunc effectum esse, sed hunc effectum esse contingenter."

[180] *C. G.* III, 90, Videntur autem (fin.): In explaining the words of St. John Damascene who had said that "God foreknows those things which are in us but does not predetermine them" Aquinas says: ". . . . exponenda sunt (ita) ut intelligantur ea quae sunt in nobis divinae determinationi non esse subjecta quasi ab ea necessitatem accipientia." The "ea quae in nobis sunt", from the context obviously refer to man's free will actions. Cf. *S. T.* I-II, 10, 4c.

At first sight it would appear that these texts run counter to those passages (some of which have already been cited)[183] in which it is said that it is God who effectively modifies all things and is Himself subject to no mode.[184] Some, as a matter of fact have seen in these texts proof that God's motion is something indifferent, something indeterminate, something to be actively and efficiently modified, canalized, specified *by* creature determination. This, however, is far from the mind of St. Thomas. In his opinion the only determination that the divine motion can receive in creatures is a passive modification such as that whereby matter limits form, or potency limits act.[185] Since whatever is received is received according to the mode (determination of being) of the one receiving, it is clear, as Ferrariensis observes that "the virtue of the universal cause receives a certain limitation and a determination to determinate effects *from* the secondary cause in which it is received",[186] that is to say, "from the condition of the secondary cause viewed as a recipient."[187] But as a recipient a secondary cause limits that which is received, not actively, as act determines potency, but passively, as potency limits act, or matter limits form. Consequently created causes determine the virtue that is imparted to them,[188] passively, through their own limited being and powers —limitations, incidentally, which they have in the first place, from the divine virtue itself, which produces and conserves these beings confers and sustains their powers. In the last analysis then, whatever determinative quality the created cause has, is due to it from the first cause.[189] He it is who *actually* and *actively* determines the operations of secondary causes, remotely by imposing a mode on their being and their natural powers, proximately and immediately by imparting only that need and measure of transitory virtue which is proportionate to their subjective dispositions and sufficient to apply and move them.[190]

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[181] *De Pot.* 1, 4, first 3m: ". . . licet causa prima maxime influat in effectum, tamen ejus influentia per causam proximam determinatur et specificatur . . ." Cf. *De Verit.* 5, 9, 10m.

[182] *C. G.* III, 66, Item: "Secunda agentia . . . sunt quasi particulantia et determinantis actionem primi agentis." Cf. *In II Sent.* 1, 1, 4c.

[183] *Supra,* pp. 301-302.

[184] *De Pot.* 3, 4c: *In I Sent.* 1, 2, 3, 3m; *In III Sent.* 23, 3, 1, sol. 1.

[185] For explanation of this principle that act is limited by the potency into which it is received, confer R. P. Phillips, *Mod. Thom. Phil.,* Vol. II, p. 187. It is a corollary of St. Thomas' potency-act theory and is constantly used throughout his works. Dummermuth, *op. cit.,* pp. 252-261, gives a splendid analysis of the passages under question.

2. Causality of Creatures

a. Fact of Finite Efficiency.

Heretofore the reality of finite efficiency has been assumed and was in fact frequently alluded to in the consideration of divine causality in order that it might be shown to better advantage the extension of God's action even to the actual causal operations of creatures. St. Thomas was well aware that in so insisting upon the all pervasiveness of God's efficiency it might appear as though he were subtracting from the reality of finite causality —in which case his position, to all intents and purposes, would be no different from that of the Moslem occasionalists. Yet it is with these very occasionalists that he constantly takes issue and, wherever he treats of the omnipresence of divine action, he firmly insists upon creature-causality. He is careful to issue the caveat that one is not to understand God's operation in everything in such a manner as to deny all proper operation to creatures and thereby deny finite causality.[191] To vindicate and defend the fact of secondary efficiency St. Thomas makes little attempt to adduce arguments of a metaphysical character, knowing full well that such arguments would have no force against those who deny the stability of natures and essences. Consequently his polemic is drawn chiefly from the inconveniences that follow from the Motekallemin position.[192] While individually the arguments have no undeniable character, cumulatively their force is overwhelming. The following are the more important of these.

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[186] *Comment. in III C. G.* 84, p. 484: ". . . quia autem unumquodque recipitur in alio per modum recipientis, accipit virtus universalis causae limitationem quandem. et determinationem ad determinatos effectus ex secunda causa in qua recipitur."

[187] *Ibid. in III C. G.* 66, p. 363: "Sic enim virtus divina et actio secundum quod in secunda causa recipitur, accipit limitationem et determinationem ex conditione causae secundae tamquam ex susceptivi conditione."

[188] i. e. the transient virtue whereby they are moved and applied to action.

[189] Cf. *S. T.* I, 105, 1, 3m: " . . . hoc ipsum quod causae secundae ordinantur ad determinatos effectus, est illis a Deo."

[190] We shall have occasion to return to the question of finite determination in the discussion of the proper effects of secondary causes.

1. If creatures were denied all proper action it would follow that the senses would be deceived as to their proper sensibles. For the senses do not feel unless they are acted upon by sensibles. This is true in all the external senses, though it is most obvious in regard to the sense of touch. Now if by the action of fire, for instance, there were no likeness of the heat of fire in the organ of feeling, it would follow that man would not feel the *heat of* (*what we call*) *fire*. For if the species of heat came to the organ from some source (viz., God) other than fire, then, although the sense would feel heat, it would nevertheless not feel the *heat of*

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[191] *S. T.* I, 105, 5c: " Sic . . . Intelligendum est Deum operari in rebus quod tamen ipsae res propriam habeant operationem." *De Pot.* 3, 7c: "Non sic est intelligendum quod Deus in omni re naturali operetur quasi res naturales nihil operentur." *C. G.* III, 69: "Non causalitas effectum inferiorum est ita attribuenda divinae virtuti quod subtrahatur causalitas inferiorum agentium."

[192] *C. G.* III, 69: "Ad praemissas autem positiones multa inconvenientia sequuntur."

(*what we call*) *fire,* nor would it feel that (*what we call*) *fire is hot.* Yet man does make this judgment and his judgment *in re* proper sensibles does not err.[193]

2. The senses testify to the fact that a sensation of heat invariably follows the application or approach of fire (unless something intervenes between organ and ignited body), that sensation of coldness invariably follows from ice, that from man there is generated normally only man. Now if fire, ice, man do nothing to produce these effects so invariably concomitant upon their presence or apposition, and if it is God alone who operates in all things, then there is no assignable reason why these different effects should steadfastly follow since it cannot be maintained that action of God Himself is necessarily varied from the fact that He operates in different things.[194] To this argument the Motekallemin would probably make answer that the diversity of effects regularly follow from the presence of different beings not because these different beings influence the production of these effects, nor because God's action is necessarily diversified by the application of one thing to another, but simply because God has willed to generate heat, for instance, when fire is present, or man, when human seed is present.[195] To indicate the unsatisfactory character of such a retort St. Thomas points out that such a decree would be contrary to divine wisdom as the following argument shows.

3. In the works of a wise man, it is contrary to wisdom for something to be without purpose. Actually however, if created things cause nothing and God alone operates in things then in vain would diverse beings be applied by Him in the causing of different effects; to no purpose would forms and natural virtues be bestowed upon creatures. Without reason would a knife have sharpness if it did not cut. Equally futile and useless would the application of fire to wood be, if God, without the subordinate

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[193] *De Pot.* 3, 7c; *In II Sent.* 1, 1, 4c.

[194] *C. G.* III, 69, Si enim. See Ferrariensis' *Commentaria, loc. cit.,* vol. III, p. 587.

[195] *Cf. supra.,* pp. 257 ff.

influence of fire consumes the wood. Such a conception of reality is, therefore, opposed to divine wisdom.[196]

4. Accessories follow upon or accompany principals. To do something by action follows upon being in act as is evident with God who is pure act and prime cause. Now since God communicated to creatures His likeness as to being, it follows that He also bestowed His likeness as regards activity. Consequently creatures have their own proper action.[197]

5. Confirmatory of the previous argument St. Thomas says: "All things exist for their operations. For the imperfect is always for the more perfect. Consequently as matter is for form, so form which is the first act of a being is for its operation, which is its second act. Thus operation is the end of every created thing." [198] If now a being were denied action, it would be deprived of that which is its proximate natural end.

6. Much perfection would be withdrawn from the creature if it could not act; since it is from an abundance of perfection that it can communicate the perfection it has to others. And if this perfection were withdrawn from the creature, the divine virtue would seem to be limited, for the perfection of an effect is an index of the perfection of its cause. Consequently from God who

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[196] *C. G.* III 69, Item. Contra; *S. T. I.* 105. 5c; *De Pot.* 3, 7c.

[197] *C. G.* III, 69, Adhuc. Quod. Cf. *ibid.* III, 21. Ferrariensis notes that this argument may be regarded as having force only "secundum convenientuam et decentiam." (See *Comment. in III Librum,* 69, p. 388). God by creating beings would seem to be under no necessity to confer upon them actual efficiency unless it can be shown that the defect of lack of causal action would mean that the creature cannot attain its end. This is precisely what St. Thomas attempts to prove in the following argument. Its appeal is more metaphysical than the others cited.

[198] *S. T.* I, 105, 5c: ". . . omnes res creatae viderentur quodammodo esse frustra, si propria operatione destituerentur; cum omnes res sint propter suam operationem. Semper enim imperfectum est propter perfectum. Sicut igitur materia est propter formam; ita forma, qua est actus primus, est propter suam operationem, quae est actus secundus; et sic operatio est finis rei creatae."

is the most perfect agent, creatures must attain perfection—and specifically—the perfection of being causes.[199]

7. God is the highest good. Just as it is proper for a good thing to do that which is good, so it pertains to the highest good to do that which is best. In other words it is fitting that it do things in the best possible way according to the need and exigency of that which is made. Now it is better for a good which is conferred upon a creature to be made the common possession of many rather than belong to one alone. But the good of one thing becomes proper to many if it is diffused by one to another. Accordingly God communicates His goodness to creatures in such wise that one can impart to another the good it has received. To deny this and assert the undiffused and undiffusible possession of goodness in creatures would be to detract from the divine goodness.[200]

8. To take away actions from finite beings is to withdraw from them that which is the best thing they have, viz., the order of one thing to another and to the whole. While each thing is good in itself, nevertheless it is better for the order of the universe that they be united rather than exist disgregately and in isolation, for the whole is always better than its parts and is in fact their final cause. Without possibility of acting and interacting, however, there would be no colligation of parts, no unity

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[199] *C. G.* III, 69, Amplius, Perfectio. This argument, like number four, appears to be at most a "suasio". The conclusion would follow *necessarily* only if God were a cause acting with necessity and not according to His own determination and will. It is evident that a cause voluntarily acting may be the most perfect cause, *in se,* and yet will only a limited manifestation of that perfection to others. Nevertheless, the argument has real force if one remembers the position of the Motekallemin. These did not merely deny that creatures possessed causal power and action, but more, they denied that action can in any way be proper to creatures. They maintained not merely that finite things *have no power of acting,* but that they *cannot have such power.* This latter assertion is indeed derogatory to divine perfection since it is tantamount to saying that God cannot give the power of acting to creatures. It is evidently against this stand that St. Thomas directs this argument.

[200] *Ibid.* Item, Sicut.

and, in the true sense, no universe. It is inconvenient therefore to say that beings have not proper operations.[201]

9. If effects are not produced by the action of created things but only by God's action, then the power of created cause cannot possibly be indicated by its effect, since the effect is no manifestation of the virtue of a cause save by reason of the action which proceeds from the power and terminates in the effect. And if the power of a being is not manifested by an effect, the nature itself of the being cannot be known thereby, since the effect only reveals the nature through the faculty which flows from the nature. The disastrous results of such a theory upon all cognition of natural sciences are readily seen, since it is in natural sciences where demonstrations *a posteriori* are most frequently used.[202] Looking at the same argument from a slightly different view-point one may say that if there is no efficiency in secondary causes, then it is folly to say that objects specify, or designate actions and that actions designate faculties or properties, or that properties characterize substances. For if substances (i. e. natures) cannot be recognized by properties, actions and objects towards which these actions tend, then one is at a loss to know how they are recognizable or differentiable at all and one cannot account for the fact that a carnation comes from a carnation and not in-

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[201] *Ibid.* Adhuc, Subtrahere. The force of the last three arguments is in showing the Motekallemin that their denial of creature-activity goes directly counter to the desire and intention they have of glorifying the divine causality. For the perfection of the work attests to the grandeur and perfection of the worker and it is a far greater proof of perfection to create a world of active natures that are ordered to one another and capable of communicating their respective perfections to each other than to create beings absolutely incapable of acting without power of transmitting one to another anything of divine efficiency, beings thus deprived of proper activity which makes of them distinct natures and renders possible a universal order. (Cf. Etienne Gilson, "Pourquoi Saint Thomas a critiqué Saint Augustin", *Archives d'histoire doctrinale et littéraire du Moyen Âge,* vol. I, 1926-1927, p. 24).

[202] *Ibid.* Amplius, Si effectus. Cf. C. G. II, 1, Rei cujuslibet. This argument is a "reductio ad absurdum" of the Motekallemin position.

differently from a cow, nor why one might not gather grapes from thorns or figs from thistles.

Along with these general arguments against Moslem occasionalism, the Angelic Doctor refutes certain particular reasons advanced and positions taken by these same religious philosophers, and by Avicenna and Avicebron in impugning finite causality. The motekallemian objection to finite causality on the ground that it would entail the transferral of numerically the same accident from the cause to the effect is pointed out to be baseless and irrelevant, since it is derived from the democritean concept of casuality, repudiated by Aristotle and St. Thomas alike. A hot body is not said to cause heat in another because numerically the same heat passes from the cause to the effect, but rather, because by the virtue of heat in the cause, a quality of heat numerically distinct becomes actual in the body that is heated and which was previously in potency to it. *Natural causality* in the subject acted upon, then, is nothing more or less than its reduction from potency to actuality; it does not consist in the reception of numerically the same form actually possessed by the cause.[203]

Already noted have been the excess and defect in the views of Avicenna and Avicebron relative to finite causality. On the one hand, both philosophers attributed to separated spiritual substances a power of creating substantial forms. On the other hand, in regard to corporeal substances, Avicenna denied to them anything but accidental active virtues,[204] while Avicebron rejected even these.[205]

Proof of the incommunicability of creative power was St. Thomas' response to their common view on spirit-action.[206] In confirmation of this the Angelic Doctor pointed out the needlessness of their suppositions. For, in the first place, the divine simplicity is proved to be no hindrance to producing multiplicity.[207]

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[203] *Ibid., Ridiculum autem; De Verit.* 5, 9, 4m; *S. T.* I. 115, 1, 5m; *In II Sent.* 1, 1, 4, 5m.

[204] *Supra.,* pp. 265 ff.

[205] *Supra.,* pp. 267 ff.

[206] *Supra.,* pp. 280 ff.

[207] *Supra.,* pp. 279-280.

In the second place the nature of the generation of corporeal substances is not such as demands the immediate production (creation) of the substantial form by a separated substance or active intellect. For (1) there is no reason why that which shares in a form cannot receive it immediately from (the action of) another being which has a similar form in a similar (participated) manner, if the latter acts in virtue of that which possesses it essentially (separated Idea)[208] or eminently (active intellect)[209] if such there be.[210] (2) On the contrary, as far as corporeal substances are concerned, there is every reason to believe that that which immediately generates such a substance is itself a corporeal substance. "Apparet per inductionem in omnibus", St. Thomas says, that like produces an effect like to itself. Now in corporeal substances, what is generated is not the form alone, but the composite of matter and form, since every generation is from something (sc. the matter) and to something (sc. the form). It is necessary, therefore, that what generates be itself a composite of matter and form and not a form alone.[211]

Against Avicenna's views that corporeal substances have only accidental active forms which are capable only of accidental effects (viz., the disposing of a subject for the reception of a substantial form), Aquinas argues: (1) Simply because the actions of inferior bodies take place by active and passive qualities which are accidents, it is not thereby necessary to conclude that nothing but accidents may be produced. It is readily granted that of themselves they can produce nothing but accidents. Nevertheless, if they act in virtue of the substantial forms themselves there is no reason why they may not be, as it were, instrumental causes of other substantial forms.[212] (2) Moreover if, as Avicenna admits, accidental forms have their own proper actions, then substantial forms likewise and indeed, *a fortiori,* must be possessed of them. For since action follows upon being in act, it would be inconvenient if the more perfect (substantial form) were deprived of action when this is proper to the less perfect (accidental form). Consequently to substantial forms must be attributed power of action. And this power must not merely be a power of disposing matter (action already sufficiently taken care of by accidental forms) but of being a principal cause in the generation of a new substance.[213]

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[208] As Plato maintained.

[209] As Avicenna and Avicebron affirmed.

[210] Obviously St. Thomas did not believe in the existence of either separated ideas or a separated active intellect, but, as frequently happens, in arguing against the positions of others he simply takes their tenets and reveals that their conclusions need not follow. This is precisely what he does here in *C. G.* III, 69, Nec etiam oportet.

[211] *Ibid.,* Item, Apparet.

Avicebron, going a step further had denied all activity of corporeal substances. The arguments he alleged, briefly noted above,[214] were to the effect (1) that every corporeal form is conjoined to quantity and quantity is a hindrance to action and (2) corporeal substances are the lowest in the scale of being, most removed from the pure actuality of God and therefore absolutely passive in themselves.

1) To the first, St. Thomas makes answer that quantity does not impede action except accidentally to the extent that continuous quantity is a form in matter. Since every form that is immersed in matter has less of actuality than forms that are not in matter, it follows that corporeal substances are thereby less active than purely spiritual forms.[215] Supposing however the mode of action that a form existing in matter can have, it must be said that quantity far from diminishing natural action, increases it.[216]

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[212] *C. G.* III, 69, Similiter, etiam, and Ferrariensis' *Comment., loc. cit.,* p. 391; *S. T.* I, 115, 1c Cf. *supra.,* p. 222.

[213] *C. G.* III, 69, Item, Si agere and Ferrariensis' *Comment., loc. cit.,* p. 390, Nono arg.

[214] *Supra.,* p. 268, 269. nn. 57 and 58.

[215] *C. G.* III, 69, Non est verum; *S. T.* I, 115, 1c.

[216] *C. G.* III, 69, Supposito autem modo. Thus, supposing an equal degree of intensity, the more quantity one fiery body has, the more it will heat. Again, supposing an equal measure of heaviness (in two bodies of the same

(2) To the second reason, Aquinas responds that: (a) Though material substances are the lowest in the genus of substance this does not mean that they cannot act. Avicebron's error is in regarding material substance *"in globo"* as if there were no differentiation between one and other, as if one were not superior to another. Not even the lowest corporeal substance is excluded from action, for every body acts by its forms, in comparison with which another body in respect of its material element may be in potency.[217] (b) It is, moreover, untrue to say that bodies are the lowest in the scale of beings, the farthest removed from God and therefore characterized by pure passivity. Actually it is prime matter or pure potency which is farthest removed from the God of pure actuality. Bodies approximate or have similitude to the divine essence in the measure that they share in forms which are the principles of action. To the extent that they have forms, they act, to the extent that they have matter, they submit to action, passively.[218]

So much for St. Thomas' argumentation against the attitudes and assertions of those who would deny altogether finite efficiency or impugn at least corporeal activity. Let us turn now briefly to the consideration of the character and extent of creature-causality.

b. *Character and Range of Finite Efficiency*

Much of what may now be said of the character and range of finite activity has been explicitly and implicitly alluded to in the pages that have gone before. Tying together some of these loose threads, we recall that being (existence) is an effect that is proper to God alone, that at times He produces existent being from no previously existing matter (creation). Apart, however, from those beings which initially must derive their existence

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consistency) the one that has the greater quantity will be moved by a natural movement (downwards) with greater velocity than the other. Cf. *S. T.* I, 115, 1, 3m; *De Pot.* 3, 7c. St. Thomas' opinion is admittedly in error on this point, though no less so is that of Avicebron.

[217] *Ibid.*, Non oportet; *De Pot.* 3, 7c.

[218] *Ibid.* Non est etiam verum; *S. T.* I, 115, 1, 2m and 4m.

from the immediate creative act of God, He moves to new being from matter and being that once exist. In this motion to new being, creatures, endowed with powers of casuality have been vouchsafed a part. In sharing in divine motion, they exercise a twofold causality—one that is instrumental in the sense that they attain to the effect that is proper to God., viz., the *existence* of the being that issues from their joint though hierarchic activity, another that is truly proper in the sense that by their proper virtues, (necessarily, of course, applied by the prime cause), the existent is in some way determined. St. Thomas gives capsuled expression to this union of God's proper causal activity with the proper and instrumental activity of creatures in the following words:—

> " . . . existence is the proper effect of the prime agent . . . all other (agents) effect it (agunt ipsum) inasmuch as they act in virtue of the prime agent; nevertheless secondary agents which, as it were, particularise and determine the action of the prime agent, produce, as their own proper effects, other perfections which determine existence." [219]

In other words, secondary agents determine the nature of that existent which, *qua* existent, they produce as instruments of the divine action. Let us consider briefly, in turn (a) this instrumental causality (operative towards being) and (b) this proper causality (determinative of being) which characterize the activity of finite agents.

(a) Instrumental causality [220]—*Operatio ad esse*

"Every agent", says St. Thomas, "is an instrument of the divine virtue operating."[221] This is already evident from the explanation of the fourth mode in which creatures are moved by God, for only as an instrumental cause, acting in virtue of the first cause can they be causative of being or existence. Nevertheless, all secondary causes do not operate towards being or the production of an existent in the same way. Whereas some are truly instrumental causes of the *being* of their effects, others, on the contrary, are responsible only for the *coming-to-be* of their effects. The builder, for instance, is the cause only of the coming-to-be of the house, not its being. Were he the cause of the being of the house, it would cease to exist as soon as he ceased to build. Actually however the cement, the stones, etc., are instrumental causes of the being of the house.[222] As it is in art, so too in nature; some things are *"causae fiendi et essendi"* while others are *"causae fiendi tantum."*[223] The Angelic Doctor has indicated two marks whereby one may differentiate the two classes of causes that operate "ad esse."

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[219] *C. G.* III, 66, Item, Secundum: ". . . esse est proprius effectus primi agentis, et omnia alia agunt ipsum, in quantum agunt in virtute primi agentis; secunda autem agentia, quae sunt quasi particulantia et determinantia actionem primi agentis, agunt, sicut proprios effectus, alias perfectiones quae determinant esse."

[220] Though we speak here primarily of instrumental causality it will be impossible to separate it entirely from the proper causality of creatures because it is in exercising their proper virtues (i. e. in "determining" the divine action) that creatures reach the effect proper to God.

(1) When the cessation of activity on the part of a cause brings about an immediate desition of being on the part of its effect, we are obviously confronted with a cause that influences the very being (existence) of the effect. When, on the contrary, the being of the thing caused remains unaffected if the cause in question ceases to operate, then the agent can only have been responsible for the becoming of the effcet.[224]

(2) In natural generation, when the effect receives the *same specific nature* as that possessed by its immediate cause, when a. v.

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[221] *De Pot.* 3, 7c: ". . . quodlibet agens est instrumentum divinae virtutis operantis." Cf. *C. G.* II, 21, Amplius, Quidquid: "Omnis . . . alia substantia praeter Deum est causata inquantum habet esse causatum ab alio. Impossibile est igitur quod sit *causa essendi* nisi sicut instrumentalis et agens in virtute alterius.

[222] *S. T.* I, 104, 1c: "Aedificator . . . est causa domus quantum ad ejus fieri, non autem directe quantum ad esse ejus . . . ita aedificator facit domum adhibendo caementum, lapides, et ligna, quae sunt susceptiva et conservativa talis compositionis et ordinis."

[223] *S. T.* I, 104, 1c; 2m; *De Pot.* 5, 1, 4m, 5m and 6m.

[224] *De Pot.* 5, 1, ob. 4 and 4m; ob. 5 and 5m; *In I Sent.* 37, 1, 1, 3m.

there is question of *univocal* causation, then the effect depends upon the agent only for its *becoming,* its inchoation, *not* for its *being.*[225] This is necessarily so, for could it be the cause of the being of its effect, then presumably it could be the cause of its own form and existence, since each has a form of the same "ratio" or essence. The absurdity of this forces one to say that it can, at most, be the cause why such a form (as its own) begins to be or comes to be in such and such individualized matter. When, however, an effect is not of the same species as its cause, when, a. v. we have to do with equivocal or analogous causation, the forms that are educed from matter are caused as to their very being by these superior non-univocal causes. Thus whereas the individua of a species may only be the cause of the becoming of their specific forms in other individua, the heavenly bodies were regarded by St. Thomas as being equivocal, instrumental causes, under God, of the being of inferior bodies.[226]

One of the more important differences flowing from this distinction relative to the function of these two classes of finite causes, is that *causae essendi* have a more extensive and universal role in divine governance—more specifically in cosmic conservation—than have those causes which are merely *causae fiendi.* Conservation, St. Thomas tells us,[227] is of two kinds, direct and indirect. Indirect conservation is of the negative type. It simply means that a being is preserved from adverse and corruptive forces whether these be external or internal, as, for example, a child is protected from danger by its guardian or food is kept from putrefaction by salt. Direct conservation is more positive, in character consisting in the continued influence of a cause upon its effect, in those cases *where the cause is the cause*

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[225] *De Pot.* 5, 1, 5m.

[226] Cf. *S. T.* I, 104, 1c; *De Pot.* 5, 1c. For general consideration of univocal, equivocal and analogous causation the reader is referred to the following: *In I Sent.* 8, 1, 2c; *S. T.* 1, 4, c; 3c; 6, 2c; 13, 5, 1m; I-II, 60, 1c; *De Pot.* 7, 7, 7m, etc. Cf. De Régnon, *Métaphysique des Causes,* pp. 505 ff.

[227] *S. T.* I, 104, 1c; *ibid.,* 2c.

of the being of the effect and not merely of its becoming.[228] Not everything stands in need of negative conservation since not everything is subject to corrupting influences which need to be removed or warded off. Thus spiritual substances, angles and human souls, and,—in St. Thomas' opinion—heavenly bodies are beyond the need of indirect conservation since they contain in themselves no internal principle of dissolution. All finite beings, however, must be directly conserved, since none is without its cause of being.[229]

Now created beings have a share in both modes of conservation. The evidence of negative conservation on the part of finite beings is common. The examples cited, the guardian with respect to its ward, the salt relative to meat might be multiplied without end in the realms of art and nature. But creatures are not limited to this indirect type of preservation. Some, under God are *directly* conservative of others precisely because they have been dignified with certain instrumental causal influence over the *being* and not merely over the becoming of their effects.[230] The most obvious reflections to be made on these observations are the following: not *all* finite beings that have a causal influence on others are conservative of the being of their effects nor are *all* finite beings instrumentally conserved.

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[228] *S. T.* I, 104, 2c: ". . . aliquid rem aliquam in esse conservat directe, et per se; quia ab eo dependet *esse* alterius, sicut a causa dependet *esse* effectus."

[229] The validity and universality of the principle of causality, here supposed, will be considered in the following chapter.

[230] While we are chiefly concerned here with efficient causes, it would be a mistake to think that efficient causes alone are directly conservative of being in an instrumental capacity. As a matter of fact this type of conservation as Aquinas notes is even more manifestly apparent in the intrinsic principles of a being's essence, viz., in its material and formal causes. The influence of these is in a true sense directly conservative for should they be taken away the thing would straightway cease to exist. Final cause, too, may exercise a similar influence. If the underlying reason be sought why they may be conservative of being, the answer lies in the very fact of their being causes, for by direct conservation as already indicated, St. Thomas meant nothing more than the continued influence of a cause (not therefore limited to efficient cause) upon its effect, and the corresponding dependence of the latter upon the formr, for *very being. De. Pot,* 5. 1c. It is important to note that the conservation as indeed the causality which finite things exercise over the *being* of their effects must always be *instrumental* and *secondary,* never *principal* or *primary* since, as previously ob-

In reference to the latter reflection, it should be observed that some things are preserved in being immediately by God, and not by means of other creatures. Included evidently in this group would be the angels, human souls and the heavenly bodies (the very same group then as escape the need of negative conservation), since their *being* can be caused by none but God, and by Him, only immediately. Angels are pure spirits. Their being consequently can only be due to a creative act of God. Consequently no instrumental cause is operable in their production. But as already indicated, it is only on condition that one thing is an instrumental cause of another's being that it can be an instrumental cause of its conservation. Heavenly bodies similarly must owe their existence immediately to God as their creator since—in St. Thomas' mind—due to their superior matter, they are incapable of being generated by bodies of like nature or of a higher nature, and certainly cannot be produced, even instrumentally by finite spiritual substances, since this would postulate a creative act on their part. Hence as there is nothing which in any sense can be called an instrumental efficient cause of their being, so there is nothing which can be an instrumental cause of their conservation. The human soul presents a special problem because as a spiritual simple being it must be created immediately and directly conserved by God. Moreover, being simple and spiritual, there can be no question of its negative conservation. Nevertheless it is an incomplete substance, the form and act of the physical organic body, making with it one substance. The substance formed by this simple spiritual principle and the matter it informs is lacking in essential simplicity and consequently liable to dissolution. There is place, therefore, for both the direct and indi-

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served, the production of the *being* of things is proper to God alone. The proper causality of creatures will be considered shortly.

rect conservation of the human being. Natural internal forces and external virtues can protect the organic character of the body so that it remains disposed for continued information by the soul. This does not alter the fact that the human soul as such must be directly and immediately conserved in being by God.

Apart from these beings that must be immediately conserved by God, all others may be instrumentally conserved, since all others may have instrumental efficient causes of *their being.* This is the role, St. Thomas believes, which is assumed by the heavenly bodies in the divine plan. In their rhythmic and uninterrupted movements, they not only assure the permanence of species of lower bodies, but also by marshalling and moving forces in matter and thus maintaining those dispositions whereby matter remains apt for forms, they conserve in being even the individua of species for as long as God wills them.[231] Other beings, however, that are causes only of the becoming of their effect can at most, only indirectly, conserve being either by warding off corruptive forces or else, like the builder, using materials that are sustentative of the form to be induced.

(b) Proper Causality—*Determinans illud esse*

While not all finite causes are productive of the *being* of their effects, they are all, nevertheless, determinative of that being. "Secondary agents", says St. Thomas, "produce, as their proper effects, other perfections which determine existence."[232] One consideration alone need detain us at this point, viz., the precise sense in which the perfections produced by secondary causes *determine* existence. The thomistic explanation of this recalls to one's mind the manner in which secondary causes determine the divine motion. Just as the divine action is determined as it were, and limited according to the condition of the second cause in which it operates, so existence (proper effect of the first cause) is definitized by the determined nature which is the proper effect of the second cause. Proof of this is in the understanding of

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[231] *S. T.* I, 104, 2c; *De Pot.* 5, 2, 7m; *In II De Coel.* 18, Vives, XXIII, p. 167-168.

[232] *C. G.* III, 66, Item, Secundum.

"esse". This, which St. Thomas calls the first of all effects—because absolutely taken, in comparison to others, it is as an indeterminate to a determinate—is at the same time the ultimate in goodness and perfection of those things towards which the secondary cause can act.[233] At first sight there would seem to be an irreconcilable opposition between these two statements. That which is first, as indeterminate, is last as most perfect? This is exactly what the Angelic Doctor says. His explanation follows. Existence is the first and most indeterminate thing in every effect precisely because it is the most perfect. It is a simple perfection, in fact, "the perfection of all perfections", connoting in itself no limitation, incapable of being actuated by any other act or actuality, itself, "the actuality of all things". Consequently any limitations or determinations it may actually have are not from another and more formal cause, but rather from the potency or the recipient which it formally actualizes. But let the words of St. Thomas speak for themselves:

> "What I call 'existence' is the highest perfection of all. Proof of this is the fact that act is always more perfect than potency. Now no conceivable form on the contrary is considered to be in act unless it be supposed to have existence. Thus humanity, for instance, or (let us say) the igneous nature of fire (igneitas) can be considered as existing in the potency of matter or in the power of an agent or even (ideally) in an "intellect. But when it has *being* it becomes existent in act. Hence it is clear that *existence* is the actuality of all things and, for this reason, the perfection of all perfections. Nor is it to be thought that anything can be added to existence which is more formal than it and which determines it as act determines potency. For existence is of such a nature that it is essentially distinct from that to which it is added and whereby it is determined. Nothing however can be added

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[233] Cf. *C. G.* III, 66, Item, secundum: "Primum . . . in omnibus effectibus *esse* est; nam omnia alia sunt determinationes ipsuis." (See Ferrariensis' *Comment loc. cit.,* p. 363: "Esse absolute sumptum . . . est primum in generatione, sicut indeterminatum determinato.") *C. G.* III, 66, Amplius: "Ultimum in bonitate et perfectione, inter ea in quae potest agens secundum, est illud in quod potest ex virtute agentis primi." (sc. ex contexto, "esse".)

> to existence itself which is outside its range since there is nothing which is outside of existence except non-being which cannot exist either as a form or as matter. *Hence existence is not so determined by another as potentiality by act but rather as act by potentiality.*"[234]

Thus one sees that the proper effects of secondary causes determine existence in the same way that the secondary causes, themselves, determine the action of the prime cause, viz., as recipients of a more formal perfection. As Franco Amerio has well expressed it; "The specification of the entity in a determinate grade of being is to be understood rather as a limitation than as an increment of perfection." [235]

Herein is contained a cue to a perplexity that arises from apparently conflicting passages in St. Thomas wherein he compares the effect to its cause from the point of view of similarity. Always the Angelic Doctor says that effects are more like to their principal cause than to their instrumental cause just as the bench or bed is more like the art which is in the mind of the artificer than the saw which was used in making it.[236] Rightly then might we expect that the effect that issues from the principal causality of God and the instrumental causality of the creature will be more assimilated to God. Yet, St. Thomas also says that though the virtue of the prime cause enters more intimately and more permanently into an effect than does the secondary cause "nevertheless it (the effect) is more assimilated to the second cause because by it the act of the prime cause is in a certain way determined to this effect."[237] The two thoughts are fused in the statement that "since the first cause exercises more influence on the effect than the second cause, therefore whatever of perfection there is in the effect is *principally*[238] attributed to the first cause; (on the other hand) whatever defect there is must be attributed to the secondary cause which does not operate as efficaciously as the prime cause.[239] Because of that more intimate and penetrating action of God, then the effect is always more like to God in its perfections. Nevertheless in its determination—determination that connotes limitation and a certain imperfection—it is assimilated to the natural secondary cause.

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[234] *De Pot.* 7, 2, 9m: ". . . hoc quod dico esse est inter omnia perfectissimum; quod ex hoc patet quia actus est semper perfectior potentia. Quaelibet autem forma signata non intelligitur in actu nisi per hoc quod esse ponitur. Nam humanitas vel igneitas potest considerari ut in potentia materiae existens vel ut in virtute agentis, aut etiam in intellectu; sed hoc quod habet esse, efficitur actu existens. Unde patet quod hoc quod dico *esse* est actualitas omnium actuum, et propter hoc est perfectio perfectionum. Nec intelligendum est, quod ei quod dico *esse*, aliquid addatur quod sit eo formalius, ipsum determinans, sicut actus potentiam; *esse* enim quod hujusmodi est, est aliud secundum essentiam ab eo cui additur determinandum. Nihil autem potest addi ad *esse* quod sit extraneum ab ipso, cum ab eo nihil sit extraneum nisi non ens, quod non potest esse nec forma nec materia. Unde non sic determinatur *esse* per aliud sicut potentia per actum, sed magis sicut actus per potentiam."

[235] "Il Principio di Causalita in S. Tomaso", *Rivista di Filos. Neo-Scolast.* XVI, 1938, p. 59: " . . . la specificazione della entità in una determinata entità e piuttosto da intendersi come limitazione che come arricchimento di perfezione . . ."

[236] Cf. *S. T.* III, 62, 1c.

In the effect which is the common *terminus* of the divine and the creature action one is not to suppose that, let us say, the finite cause produces the determination first and then God gives this determination existence or, vice versa that God produces indeterminate existence and the secondary cause operating upon this contracts it to some determinate nature. Nor should one imagine that the existential character of the being is exclusively produced by God and the determinate nature of this existent, exclusively by the creature. As was said before and as St. Thomas repeats time and again, the *esse* of the effect is attained instrumentally by the secondary cause.[240] As for the determination of the effect, this is ultimately due to God who has remotely conferred upon the finite agent determinate powers of operation, and proximately and immediately conjoins those powers to their proper effects by a determinate motion that is proportioned to their potentiality as well as to the effect that is to be produced.[241] Furthermore, just as the action of the craftsman and that of his tool are not two distinct motions with two distinct effects, so the production of an existent (proper effect of God, instrumental effect of the creature) and the production of a determinate existent (proper effect of the creature-cause, moved and determined by God) are not two distinct effects produced by two motions, but one effect produced by one motion of God and His creature-instrument. That is why St. Thomas can say that one cannot distinguish in the effect what is produced (exclusively) by God and what (solely) by the creature,[242] as if both were partial causes and contributed only partially to the effect. Rather is it necessary to say that the effect in its entirety is from God and from the finite being as from two causes entire and sufficient in their own orders, i. e. as principal and instrumental, as primary and secondary causes.[243]

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[237] *De Verit.* 5, 9, 10m: " . . . tamen magis similatur causae secundae, quia per eam determinatur quodammodo actus primae causae ad hunc effectum.

[238] Principally but not exclusively; perfection is attributed instrumentally to the second cause.

[239] *De Pot.* 3, 8, 15m.

[240] *Supra.*, pp. 280, 299, 301, 318.

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[241] *Supra.*, p. 308

[242] *S. T.* I, 23, 5c: " . . . nec est distinctum quod est ex causa secunda et causa prima."

[243] *C. G.* III, 70, Patet autem: " . . . non sic idem effectus causae naturali et divinae virtuti attribuitur quasi partim a Deo et partim a naturali agente fiat, sed totus ab utroque secundum alium modum; sicut idem effectus totus attribuitur instrumento et principali agenti etiam totus." Cf. Garrigou-Lagrange, *op. cit,* Vol, II, pp. 149-150. Definitely opposed to this would seems to be the statement of Ludovicus Molina (*Concordia Liberi Arbiturii,* Paris, Lethielleux, 1876, q. 14, 2, 13, d, 26 Ex Dictis, p. 156-157) that God concurs with the second cause as one partial cause with another to produce the same effect "non secus as cum duo trahunt navim totus motus proficiscitur ab unoquoque trahentium," that the effect therefore is not from God nor from second causes as from a whole cause but from each "ut a parte causae quae simul exigit concursuum et influxum alterius." It would appear that this is precisely the mode of creature-cooperation with the divinity that St. Thomas reprobates, for in the opusculum *Contra Errores Graecorum* (Opusc. VI. Vives, Vol. XXIX, c. 23, p. 355) he explicitly says that the creature cannot cooperate with the Creator in the same way as if "diceretur de duobus portantibus aliquod pondus, vel de pluribus trahentibus navem, quod unum alteri cooperatur." For in this kind of

In summary and in parting justification of the divine and the creature's joint action, we may cite the words of the Angelic Doctor himself against those who would minimize the former or deny the latter.

> "If a natural thing produces its own effect," he says, "it is not superfluous that God should produce it too, since the natural thing does not cause it save by the divine virtue; nor is it superfluous if God is capable of producing all effects Himself that He should employ other causes; for this (participation by creatures in causality) is not due to the insufficiency of the divine virtue but to the immensity of the divine goodness through which He willed to communicate His likeness to beings not only as to their *being* but as to their being causes of others. In both of these ways do creatures commonly attain resemblance to the divinity." [244]

In this way then did St. Thomas vindicate creature causality and affirm its distinction from as well as its harmonious though subsidiary union with the divine causality. His solution of the problem of reconciling divine and created activity by no means puts an end to the question. It could not very well be otherwise for stark mystery will ever surround the relations of the two, As Garrigou-Lagrange has said:

> "There still remains the mystery which underlies all the great theological questions, the mystery of God, of the creative act, of the co-existence of the finite and the Infinite, and in this case, the coexistence of uncreated action and created activity, of primary and secondary liberty. It is the very absence of mystery that would be surprising." [245]

Nevertheless in his attempted solution of the difficulties involved, Aquinas, without apparent sacrifice of principle or common sense

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cooperation, he continues, "each of these possesses only a part of the virtue. . . and so the virtue of each would be imperfect." For a full explanation of this passage the reader is referred to Dummermuth, *op. cit.,* pp. 110-112.

[244] C. G. III, 70. Patet etiam.

[245] *Op. Cit.* Vol. II, pp. 357-358.

realism, has steered a middle course giving honor to the divine causality without belittling creature-action, doing justice to God's universal determination without being constrained to scrap liberty and imputability. In doing this one sees that he not only clarified and defended the explicit utterances of Aristotle relative to the finite causality but also gave voice to implications apropos divine causality that had remained so long inarticulate in the Stagirite's system. Let us now turn to the thomistic understanding of the principle of causality.

CHAPTER XII

NECESSITY OF CAUSE

(Principle of Causality)

When, in 1888, the dean of the faculty of Philosophy at the University of Lille, A. De Margerie, delivered an address before the First International Scientific Congress of Catholics at Paris and told his astounded auditors that the principle of causality lacked analytic character and was rather a synthetic *"a priori"* proposition,[1] he sounded, herewith, a note that proved to be the occasion for one of the most lively and serious controversies that have arisen in recent years within the neo-scholastic fold. The scope of the present work obviously precludes the necessity of entering into the stages and development of this still agitated discussion.[2] The purpose in the present chapter of course, is to seek, without prejudging any other system, the personal thought of St. Thomas on the question of the principle of causality, to see wherein he agreed and to what extent he differed with the thought of Aristotle on the matter. Nevertheless in returning to discover for oneself this personal thought of the Master it would be foolhardy not to avail oneself of certain suggestive leads and indications relative to what one should expect of the principle of causality, which have been one of the benefits that have accrued to us from the welter and furore of controversy. The recent conflict has at least sharpened issues and set down norms of judgment. In its half century duration from De Margerie to Laminne,[3] to Sawicke,[4] Hessen[5] and Geyser,[6] this much has become increasingly clear, viz. the need of giving most careful and exact and adequate expression to the principle if it is to warrant critical justification. In it one will expect to find a formula or proposition which is expressive of the necessary relationship of dependence of what one calls an effect upon its cause; one will expect moreover that that which is designated an effect is sufficiently universal in extent to include anything that might be the term of causal action. Obviously it will not be sufficient to say that every effect must have a cause or, as St. Thomas himself expresses it, that "every effect has a necessary relation to its efficient cause"[7]—though this is universal in extent and expresses a necessary relationship—*unless one understands precisely what is and what must be an effect and why therefore by its insufficiency it must be a term of causal action.*[8] Clearly such a concept and

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[1] "Le principe de causalité est-il une proposition analytique ou une proposition synthetique 'a priori'?", *Congrès scientifique des Catholiques tenu a Paris en* 1888, Paris, 1889, t. I, pp. 2, 76, 288 ff.

[2] For an extensive work on the subject the reader is directed to Adolf Heuser, *Neuscholastische Begrundungsversche fur das Kausalprinzip,* Bonn, H. Poppinghaus, 1930. A digest of the historical phase of the controversy may be found in a brief note of N. Balthasar, "Causalité" in the *Rev. Neo-Scholastique,* vol. XXXII, 1930, pp. 216-217. Going beyond 1930 further references may be found in *Bulletin Thomiste,* vol. VIII, n. 4, 1931, pp. 376-394, praesert, pp. 376-378; *ibid.* vol. XI, n. 2 and 3, pp. 96-100. Perhaps one of the most noteworthy contributions to the discussion in the way of historical presentation, analysis and evaluation of opposing opinions and proposed solutions as well as constructive defense of the traditional and thomistic view of the analytic character of the principle in question is the article of Cornelio Farbo, C.P.S., "La Difesa Critica del Principio di Causa" in *Rivista di Filosofia Neo-Scolastica,* vol. XXVIII, 1936, pp. 102-142. See also by the same author "L'origine psicologica della nozione di causa", *ibid.* vol. XXIX, 1937, pp. 207-245; "Intorno alla nozione 'Tomista' di contingenza.", *ibid.* vol. XXX, 1938, pp. 132-149. We have found the first article in particular of immeasurable help in the preparation of this chapter.

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[3] In two vigorous articles that appeared iln the *Rev. de Phil. Neo-Scholastique,* "Le principe de contradiction et le principe de causalite" (Vol. XIX, 1912, pp. 453-488) and "Le principe d identité et de causalité" (vol. XXI, 1914-1919, pp. 357-364) M. J. Laminne attempted to bring out the inefficiency of the recent justifications of the traditional position, denouncing them all as vitiated at their root by a begging of the question.

[4] Franz Sawicki, "Die Irrationale in den Grundlagen der Erkenntnis und die Gottesbeweises", Philosophisches Jahrbuch, vol. XLIV, 1931, pp. 410-418. For Sawicki, the principle of causality (which he has identified with the principle of sufficient reason) can be declared evident only insofar as the integral intelligibility of existence can be placed out of question. Since there is no theoretic evidence either immediate or mediate for this, one must fall back upon an act of believing trust. ("in einen Akt glaubigen Vertrauens"). Void of true evidence therefore these primary theoretical principles are accepted as sheer postulates that life exacts for its pure possibility.

[5] J. Hessen, *Das Kausalprinzip,* Augsburg, B. Filser, 1928. An anti-intellectualist like Sawicki, he too posits an act of faith in the meaning of existence. The principle of contradiction on which all other principles are presumably based is not he contends "of immediate evidence." (*loc. cit.,* pp. 196-199). The first principles and in particular that of causality would have a certain basis only on the hypothesis that ideas are faithful copies of and terminate in objects, a naive opinion of scholastic intellectualism which with the advent of modern philosophy must fall into desuetude and oblivion (*loc. cit.,* pp. 47-58). An uncaused becoming while it may be intellectually unthinkable is not by that fact really impossible (p. 227). Nevertheless the principle of causality while lacking, theoretically, immediate evidence remains valid because it appears as a necessary postulate of scientific labors which without the supposition of the real existence of causal relations would be lacking in meaning and guarantee of progress.

[6] Joseph Geyser has been called by Fabro "il più noto studioso odierno

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della causalità". In his earlier works (*Das Philosophische Gottesproblem,* Bonn. 1899; *Naturerkenntnis und Kausalgesetz,* Munster, 1906; *Allgemeine Philodophie des Seins und der Natur,* Munster, 1915, pp. 118 ff.) he defended the analytic character of the principle of causality. Subsequent research however made him change his mind definitely as his two latest books reveal (*Das Prinzip vom zureichenden Grunde,* Regensburg, Habbel, 1929 and especially *Das Gesetz der Ursache,* Munchen, Reinhardt, 1933.) The book *Das Gesetz* is extremely important since it contains not only a most penetrating criticism of the traditional defense but constructively presents what the author (Geyser) believes to be a proof that is entirely new and of rare evidence for the principle in question, based upon the concept of "die notwendige zeitliche Dauer des Nichtseins und Seins der Kontingenten" (cf. chapter, 4, *loc. cit.* pp. 44-52). For a succinct presentation and criticism of this theory see Fabro's article, "La difesa critica del principio di causa", *R. d. N-S.* XXVIII, 1936, pp. 114-115.

[7] *De Pot.* 3, 17, 4m: "Omnis effectus habit necessariam habitudinem ad suam causam efficientem. . ."

[8] It is precisely this point which Theodore De Régnon in his *La Métaphysique des Causes,* and Domet De Vorges in his *Cause Efficiente et Cause Finale* (Paris, Bureau des Annales de Phil. Chrétienne, 1888) have missed or ignored. See De Regnon, op. cit. pp. 135-137, De Vorges, *loc. cit.,* pp. 35-36, 45 ff. De Vorges, believing that De Regnon has given the most exact and clearest definition of cause and effect says simply that the cause is "the principle of action", the effect "the term of action", and therefore every effect must have a cause. Rather an ingenuous explanation which doesn't clarify the problem at issue. It is obvious that if a being

formula must be of metaphysical content and validity and indeed of the highest metaphysical purity and extension. If such a proposition moreover is what we may call a first principle or if it is a principle "per se notum" or "analytic" as the expression is, it should contain within itself immediate evidence of its own certainty and necessity. This means as Farbo has well expressed it, that

> "the predicate is seen to pertain to the subject because the nature itself or essence of the predicate is presented to the mind in a manner such as exacts its reference to the subject in general, i. e. independently of the particular modality of being which the object can have in its concrete realization, a. v. that the necessity of attributation rises uniquely and of necessity from the consideration of the essence of the terms." [9]

This is simply the expression of the traditional doctrine of Aristotle and St. Thomas relative to the certitudinal cognition of prime principles and "per se notae" propositions.[10]

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is a *term of action* it *must* have a *principle of action*, but, (if the principle of causality is to have any practical import) it is absolutely necessary to know when a being *is* a term of action (not so obvious when one hasn't witnessed the beginning of action as we shall see) and why beings of whose becoming or commencement we have no experimental knowledge *must* nevertheless be terms of causal action, effects.

[9] "La Difesa Critica. . . . " *loc. cit.*, p. 117.

[10] It should be noted that every prime principle is a proposition immediately known of itself, i. e. from an analysis of the proper meaning of the terms. "Ipsa principia immediata *non per aliquod medium extrinsecum cognoscuntur sed per cognitionem propriam terminorum.*" *In I Post. Anal.* 6, Vives, XXII, p. 120 b. See below p. 350, n. 55. Not every proposition however that is known in such a manner is a prime principle. "Per se nota" simply refers to the comparison of the terms which reveals immediately the necessary relation of subject to predicate. Such propositions need not necessarily be prime principles and frequently, are not. As we shall see any proposition in which the predicate is the definition or part of the definition of the subject, or in which the (logical) subject is the real and proper subject of the predicate, is likewise a proposition *per se* known. Thus St. Thomas would say that the propositions: man is rational, man is risible, angels are not circumscriptively in place, etc., are propositions which are immediately evident once the meaning of the terms is known (though one may only with difficulty arrive at an adequate knowledge of

And in speaking of the *perseity* of propositions it is of extreme practical as well as historical interest, as we shall see, to recognize that there are two types of necessary attribution in traditional aris-thomistic logic, the second of which has been almost entirely lost sight of in modern philosophy. The first is that in which the notion of the predicate, as attributed to the subject, pertains to its form, when, in other words, the definition or something belonging to the definition is predicated of the thing defined [11] as for example when rational or animal is predicated of man. The second mode of this necessary attribution is that wherein the *subject itself* or that to which something is attributed *is the proper matter and proper subject of the predicate.* Here the predicate does not, as in the former case, belong to the definition of the subject; on the contrary the subject is included in the definition of the predicate which inheres in its as its proper accident,[12] as

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the meaning of the terms) *S. T.* I. II, 94, 2c. Propositions *per se* known have the added distinction of being *prime principles* (called also "dignities") if "they are related to being as being", if "all sciences must admit them", if "none can dispense with making an appeal to them" (cf. *De Regnon, op. cit.,* p. 51) or if they express "truth or truths prior to all others in the potential grasp of the intellect—the truth or truths the understanding of which does not presuppose the knowledge of any other truth, even implicitly: propositiones summe notae." (Cf. Rev. J. B. Sullivan, *First Principles in Thought and Being,* Catholic University Ph. D. Dissertation, Philosophical Studies LI, Catholic University Press, 1939, p. 24.) We shall attempt to determine whether the principle of causality is a proposition *per se* known and whether, in addition, it may be called a prime principle.

[11] *In I Post Anal.* 10, Vives, XXII, p. 126 a: "Primus modus dicendi per se est quando id quod attribuitur alicui pertinet ad formam ejus. . . quando praedicatur definitio de aliquo definito vel aliquid in definitione positum". Cf. *In II De Anima,* 14, Pirotta edit. n. 401.

[12] *Ibid.* p. 126 a: "Secundus modus dicendi per se est, quando . . . id cui aliquid attribuitur, est propria materia, et proprium subjectum ipsius . . . quando subjectum ponitur in definitione praedicati, quod est proprium accidens ejus". *In II De Anima,* 14, n. 401: " . . . sicut . . . numerus est par . . . enim par nihil aliud est quam numerus, medietatem habens, et in istis subjectum est causa praedicati". Cf. *In I Post Anal.* 33, Vives, vol. XXII, p. 194 b. When it is said that the predicate is a "proper accident of the subject" in this type of predication it should be borne in mind that this property need not be a *specific* property of the subject. It may

e. g. evenness or unevenness as predicated of numbers or the capacity to laugh as attributed to man.

With these preliminary thoughts the way lies open to a consideration of the principle of causality as conceived by St. Thomas. How did he express it? What validity and certainty did he attach to it? The answer to these is not without difficuly for, in the first place one finds in his works not one, but many formulas that are descriptive of a necessary causal dependence. In no place has he singled out any one of these and explicitly said, "here is the *ultimum quid,* the final expression of the principle of causality." In the second place, he has nowhere explicitly affirmed that any of these are judgments which are *per se nota,* nor has he anywhere indicated in so many word the ground for the necessity that each of these propositions implies. Nevertheless, from the analysis of these formulas one may reasonably judge what necessity he attached to each and, from a comparison between them one may arrive at that which the Angelic Doctor must have regarded as the ultimate, most universal and most adequate phrasing of the principle in question. To this end let us consider in turn the five fundamental propositions to which all other formulations may be reduced.

1) *Quidquid movetur ab alio movetur.*[13]

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be a *generic* or *common property.* Thus in the proposition: "Man must be circumscriptively in place" the predicate is a generic or common property of man since it belongs to man not *qua* man but by reason of a higher subalternate genus under which man is subsumed viz. *body.* It is because man is a body that he must be circumscriptively in place with this second type of perseity.

[13] Franco Amerio has observed that in this expression the first "movetur" cannot be exactly translated either by the middle voice ("whatever moves itself"), for then it would involve a contradiction; nor can it be rendered by the passive voice ("whatever is moved") for the judgment would be purely tautological. He notes the meticulous exactitude with which St. Thomas expresses the true thought of Aristotle by the proposition, "In quocumque enim est motus illud movetur" (*In III De Anim,* 2, n. 592; *In III Phy.* 4, Vives, XXII, p. 392 b). See "La Formulazione del principio di causalita e la nozione di causa in S. Tomaso", *Riv. di Fil. Neo-Scol.* XXIX, 1937, p. 27.

In the first place there is that formula which the Angelic Doctor makes use of so frequently in common with Aristotle: whatever is in motion is moved by another [14] or—to bring out more the metaphysical signification of the same proposition—nothing passes from potency to act save by a being already in act.[15] Now there is no question about the ontological validity of this principle. In the mind of St. Thomas as in that of Aristotle this principle implies in itself absolute necessity. The concept of being in potency is one that in itself would remain utterly foreign to actual motion unless the potency becomes actualized by a being in act. But where does the necessary nexus of dependence enter into the proposition that *every mobile in motion is moved by another?* Influenced somewhat by the dialectic of Geyser in respect to the notion of contingency,[16] one would have to concede that "being moved" does not necessarily pertain to the definition of a *mobile being,* that such a being therefore has no motion of itself, that is, to the extent that it *is* a mobile being. One might even be ready to grant that to make the inference: ergo, the mobile in motion is moved by another, is not warranted by an analysis of the essence of mobile being, that "being moved by another" does not therefore belong to the definition of the subject. It would only follow from such argumentation that the proposition "every mobile in motion is moved by another" does not belong to the first type of proposition *per se* known.

Nevertheless, it could still belong to the second type of such propositions. Recalling that the second type is that wherein the

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[14] *S. T.* I, 2, 3c; *C. G.* I, 13, Quarum prima; see references in preceding note.

[15] *S. T.* I. 2, 3c; *C. G.* I, 16, Adhuc, Quamvis.

[16] In *Das Gesetz,* p. 28 ff. Geyser argues thus: "The 'ratio' of contingency expresses that if B exists, this existence, regardless of whether it has or has not had a temporal beginning, in any case does not have its ground in the essence of B; B therefore has no existence to the extent that it is B; but (beyond this) one can say no more (about the essence of contingency)" (Quoted in Fabro's, "La Difesa", *op. cit.,* p. 126). If he argues in this vein concerning contingency it is certain that he would affirm the same about the notion of "mobile in motion."

(logical) subject enters as real subject or proper matter into the definition of the predicate let us turn to the predicate and analyse the meaning of *"being-that-is-moved-by-another."* Since motion is the act of something that exists in potency as such, a being that is moved by another obviously cannot be in act with respect of that to which it is moved, for in that supposition its being moved thereto would be out of the question and useless. Hence it must be a being in potency whose potency is (being) actualized by a being in act. But a being in potency whose potency is being actualized is precisely what is meant by a *mobile in motion* and therefore such a being is a proper subject of the moving action of another. The principle, therefore, appears to be known from the analysis of its terms on the ground at least of this second type of *perseity*.

Its necessity is further certified, and we might say, guaranteed, by the fact that a denial of its being moved immediately abuts into contradiction, a. v. a mobile in motion that is not moved by another is inconceivable—and when we say inconceivable we mean as St. Thomas would mean that the thing is intrinsically impossible and for that reason extrinsically unactuable, unrealizable. Juxtapose the concept *"unmoved* by another" and "mobile in motion" and it will be immediately evident that there can be no confluence of their respective notes, no compatibility between them. For a being that is unmoved by another is either a being that is immovable (in one or all respects) because already in act, or a being that de facto is unmoved though capable of being moved. In either case, the concept of being "unmoved" immediately clashes with "mobile in motion."

Certain and necessary therefore though this formula is, and as Aristotle conceived it, it cannot however for St. Thomas be the full expression of the principle of causality precisely because as frequently noted above, there is causal action which is not motion and there are beings which are terms of this action, which are not such through a transition from subjective potency to act. The formula thus expressed is clearly inapplicable to creation. For under no aspect, even passively considered, as it is in the creature, can creation be regarded as a passage from potency to act.[17] One recognizes, therefore, that any formula such as this which contains or implies the notions of motion or transition from subjective potency to act is an incomplete and therefore imprecise expression of the principle of causality.

2. *Quod non est non incipit esse nisi per aliquid quod est.*[18]

The second class of formulae are those which center around the note of beginning, commencement, inception, becoming, newness of being. Thus: it is manifest that everything which did not always exist has a cause:[19] whatever is not eternal, if it begins to be needs a cause of its being;[20] everything that becomes has a cause;[21] everything that is new must have a cause;[22] whatever newly becomes must take its origin from something which innovates it.[23] It is clear that ordinarily the beginning or inception here referred to signifies a temporal commencement[24] and is so understood in common usage. It is this type of effect which St. Thomas says manifestly[25] and plainly[26] indicates the need of a cause.

It would appear therefore that "being caused" is necessarily attributed to that which begins to be. But on what grounds is this attribution necessary? Is the evidence *immediate* in the analysis of terms?[27] One is forced to say that by a sheer analysis of the *essence* of the subject, i. e. the *being-that-begins-to-be,* one could never arrive (that is to say, without appealing to "aliquod medium extrinsecum"), at its identity with the predicate, i. e. *being-that-is-caused.* For only on the condition that "being caused" is the definition or a part of the definition of the subject could it be said that analysis of the *essence* of the subject *immediately* reveals and demands the predicate.[28] But however slight our knowledge of the *essence* of the being-that-begins-to-be, this much we do know, viz., that its beginning to be and its existence are certainly *not of this essence.* Otherwise it would always have existed.[29] The fact of its erstwhile inexistence is proof positive that its nature or essence neither implies existence, nor determines its beginning of existence; it attests moreover to the fact that *existence is something superadded to essence.* The point is simply made to emphasize the statement made above that the analysis of the *essence* itself of the being-that-begins-to-be does not disclose in any way the characteristic of "being caused" as pertaining to its definition. The conclusion to be drawn is that the proposition, whatever begins to be is caused, is not of the first type of *perseity.*

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[17] Cf. *S. T.* I, 46, 1, 1m.

[18] *S. T.* I, 2, 3c

[19] *S. T.* I, 46, 1, 6m: "Omne quod non semper fuit, manifestum est habere causam."

[20] *Comp. Theol.* I, c, 6, Vives, XXVII, p. 3b: "Omne quod non semper fuit, si esse incipiat, indiget aliquo quod sit ei causa essendi. . ."

[21] *S. T.* I.-II, 5, 1, 1m: "Omne quod fit habet causam."

[22] *C. G.* III, 89, Item, Arguit: " . . . omne novum oportet quod habeat aliquam causam."

[23] *C. G.* I, 13, Quorum primum est: "omne quod de novo fit, ab aliquo innovatore oportet sumere originem, quum nihil educat se de potentia in actum vel de non-esse in esse." Cf. *Ibid.* I, 99, Item: "Omne illud quod quandoque est et quandoque non est, est per aliquam causam.

[24] We say that beginning is *commonly* associated with temporal inception. We shall note further on that "newness of being" may prescind from the time element.

[25] *S. T.* I, 46, 1, 6m.

[26] *C. G.* I, 13, Quorum primum est.

It will belong to the second type, however, if analysis of the predicate, being-caused, reveals the (logical) subject as its proper matter. Being-caused essentially signifies being-given-existence, for this follows from the definition of a cause as that which by its positive action contributes being to, or contributes to the being of, another. But a being to whom existence is given is none other than a being that is not its own existence. But if there is any such being it is a being-that-begins-to-be. Hence the force and inescapable truth of the statement: "if a being which once was not, begins to be, it needs another as the cause of its being." [30] Above all others then the proper subject (recipient) of existence from another is the being which begins *de novo* and has not existence of itself. Hence the logical subject of being-caused is being-that-begins-to-be. Incipient being, therefore, cannot but be given existence, cannot but be caused. The formula, therefore, which expresses this relation is consequently evident according to the second type of *perseity*.

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[27] For the understanding of the term "immediate" in this connection see above p. 333, n. 10 and below p. 350, n. 55.

[28] This is merely to repeat again our understanding of the *per se* necessary attribution of the first type, i. e. when the definition or a part of the definition is predicated of the things defined.

[29] This does not suppose as solved the problem of the real distinction between essence and existence in the actually existing essence. Nor in fact does it even touch the question. It simply concerns itself with the question as to whether existence *is of the essence* of the being, which begins to be. The answer obviously is in the negative on the score that the essence which is eternal is not eternally existent.

Like the prior formula that was concerned with motion, it, too, is immediately reducible to the principle of contradiction. For a being which begins to be without being caused is a contradiction in terms. If it were not given existence (i. e. if it were not caused) it would not begin to be, for of its essence it has no existence. If such a being commences to be it must therefore receive existence, it must therefore be caused and cannot at the same time be uncaused.

But, immediately evident though this principle is, contradictory though its denial would be, it nevertheless labors under a serious handicap. For though there is indubitable evidence that all beings of temporal origin must necessarily be effects or terms or causal action, there is no evidence that beginning to be is essential to the concept of effect or to the idea of causality. As Mercier observes "temporal commencement or 'novitas essendi' is *for us* the ordinary index of the existence of causality, but it is not a formal element of causal dependence." [31] Scrutinise how you will the notion of causality, (freed from the imperfection of successive motion, as it is in the action of creation) and you will never be able to arrive at the conclusion that cause must necessarily be chronologically anterior in being and in action to its effect. That is why St. Thomas was so quick to affirm:

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[30] Cf. *Comp. Theol.* I, c. 6: 'Omne quod non semper fuit, si esse incipiat, indiget aliquo quod sit ei causa essendi."

[31] D. Mercier, *Critèriologie Générale, Cours de Philosophie,* vol. IV, 5th edit., Paris Felix Alcan, 1906, p. 282: "Le commencement temporel, la 'novitas essendi' . . . est, *pour nous, l'indice ordinaire* de l'existence d'une causation, mais n'est point un élément formel de la dépendance causale."

> "Non necessariuum est quod duratione (causa) praecedat effectum suum. . . Nulla causa producens effectum suum subito, necessario praecedat effectum suum duratione."[32]

That is why St. Thomas continually sought to free and purify the notion of causality from any element of temporal succession. This is the whole burden of his teaching relative to the perfect causality of God in creation. It is extremely important to recognize this for, as Franco Amerio observes, were the principle of causality dependent upon the "ratio" of temporal beginning it would be impossible to demonstrate the creation of the world by God —so vital in thomistic theodicy—since, as St. Thomas was aware, its temporal inception cannot be apodictically proved.[33]

It is obvious, therefore, that one must look elsewhere for a more perfect expression of the principle if it is to have the universality proper to it, since the concept of commencement, understood at least with its usual temporal connotation such as we have been describing, cannot serve as the basis for the principle just as it cannot be essential to causality itself.

We may note, however, that there is a less common understanding of "beginning-to-be" and "novitas essendi" which would allow the proposition (whatever begins to be is caused) to be regarded as a factually correct even though unfamiliar and to a certain extent unsatisfacory formula of the principle. It is that meaning which prescinds from the time element and regards finite being solely in its nature. Anton Pegis has brought out the idea, when, referring to the Greek concept of eternity, he says:

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[32] *Opusc.* XXIII, *De Aeternitate Mundi,* Vivès, vol. XXVII, p. 451 a. Cf. *In III Sent.* 18, 1, 3, 3m.

[33] "La formulazione del principio di causalita, etc.", *Riv. d. Fil. Neo-Scol.,* vol. XXIX, 1937, p. 389: "Se la causa è richiesta dalla ragione di incominciamento che si possa in qualche realta, non si potrebbe dimostrare che il mondo necessariamente è creato da Dio, tesi capitale nella Teodicea tomista."

> "In speaking of the Greek and Neoplatonic world as never having begun to be I am concerned with a beginning *in the order of being,* not in the order of time. In this sense a universe which is created from all eternity is still a universe which begins to be." [34]

This thought is basically thomistic. The Angelic Doctor, fully aware of the rational non-repugnance of the world produced from eternity, would never have defined creation in the creature as "habitudo . . . ad creatorem cum quadam novitate seu inceptione" [35] or "relatio quaedam ad Deum cum novitate essendi",[36] unless he were speaking of a beginning which prescinded from the time factor. Granting the possibility of such a world, in the Saint's opinion there would still be two senses in which there is newness of being about it. In the first place its being would still be *naturally* subsequent to its non-being.[37] In other words, left to itself it would be nothing, it would *not be.* In the second place, there would be newness of being about it since no *"old being"* presumably has been used as a material cause in its production. Now if newness of being is taken in this latter sense it would be coextensive with those effects only which are the products of a creative act but would not apply to everything that might be called an effect. If, however, it is understood in the first sense, as implying simply the natural priority of nothingness to being, then every finite being whether it exist in the present or in the past, whether it be eternal or not can be said to have had such a beginning or newness of being. And going on from there one could say that everything which so begins must be caused. It would be true, moreover, that beginning-to-be or newness of being in this signification is coterminous with everything that one may call an effect.

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[34] Anton C. Pegis, *St. Thomas and the Greeks,* Milwaukee, Univ. Press, Milwaukee, 1939, note 67, p. 105. Italics mine.

[35] *S. T.* I. 45, 3, 3m.

[36] *De Pot.* 3, 4c (fi.)

[37] *Vide supra.* p. 271.

The being of a thing after its non-being (in the non-temporal sense of "after") is intrinsic to every effect.

Such an understanding of "beginning-to-be" is, it must be conceded, unfamiliar to the modern mind even when schooled in philosophic thought. Moreover, unlike beginning in the order of time, the fact of which is immediately discoverable or observable by the senses, beginning in the order of being is a concept derived from other concepts (e. g. from being which, if left to itself, would be nothing, from being which is not its own existence, from being which is such by participation). Herein lies its unsatisfactory character. For one is needlessly multiplying steps in order to arrive at such a universal expression of the principle of causality. Any one of the concepts from which the idea of natural inception in the order of being is derived, would of itself, as we shall see, directly express the necessary bond of causal relationship and dependence. We shall see then not only that the concept of non-temporal beginning is dependent upon those of composition and being-by-participation, but also that the formula containing this note is last, at least in psychological genesis, and adds nothing in the way of universality or necessity to the clearer concepts and formulas that have preceded it.

3. *Omne quod possibile esse et non esse habet causam quia in se consideratum ad utrumlibet se habet.*[38]

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[38] *C. G.* II, 15, Praeterea: cf. *ibid.* I, 15, Amplius. This has commonly been regarded as the thomistic prototype of the formula which has been received with such extraordinary favor in scholastic circles: "every contingent being has its efficent cause." (Cf. V. Remer, *Ontologia,* Rome, 1828, ed. 4 p. 216: Garrigou-Lagrange, *God: His Existence and Nature,* St. Louis, Herder, 1934, vol. 1, pp. 191-193; Hontheim. *Theodicea,* Freiburg, 1926, p. 22; Mercier, *Ontologie,* Louvain, 1930, ed. 5, p. 444; *Critériologie Générale,* Paris, 1906, 5th edit. p. 282; Maritain, *Preface to Metaphysics,* London, Sheed and Ward, 1939, p. 132 ff; and among others, Caspar Nink, De Mandato, Boyer, De Vries et al.) Though it is difficult to find unanimity as to the precise meaning of contingency, it seems there would be general agreement in the definition that a contingent being is that which is capable of being and not being, that which is indifferent to existence, and, derivatively, that which is not its own existence. Some invoking the principle of sufficient reason

Before analyzing this formula it is important that one understand the meaning which St. Thomas attributed to the expression *possibile esse et non esse* in the present and similar contexts. The expression in itself is somewhat ambiguous and the misinterpretation that has been put upon it is quite understandable. One immediately thinks of an essence with an intrinsic aptitude to receive existence (intrinsic, objective possibility), an essence, moreover, which is indifferent to existence and non-existence in the sense that existence is not of its essence. Where antecedent indifference is removed, where determination relative to existence replaces essential indetermination, it is recognized that the determination is not due to, i. e. has not its radical ground in, the essence *qua* essence. This, *nisi fallor,* reflects the conception of contingency, of "possibility for, and indifference to existence and non-existence" which is prevalent today. We may say with Farbo that the terms are expressive of a mental or a "logico-metaphysical" content.

For St. Thomas, however, they possessed an extra-mental, a "physico-metaphysical" content. There exist in the world things that are capable of being and of not being, contingent beings,

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define it as that which does not contain within itself the reason for its own existence. Most commonly agreed upon, however, are the first two designating marks, viz., capability of being and not being and indifference to existence. One sees how naturally they invoke St. Thomas as the formulator of this expression. Actually, however, as Fabro has gone to great lengths to prove (cf. "La critica difesa . . . " *Riv. d F. N.-S.,* XXVIII, pp. 126-128; "Intorno alla nozione 'Thomista' di contingenza", *ibid.* XXX, pp. 138 ff.) the current understanding of these expressions is quite different from that of St. Thomas in the present and similar contexts. Fabro shows beyond question of doubt that, from an historical viewpoint, the notion of contingency as agreed upon today, and the formula of causality based on it have their origin not with St. Thomas but with Christian Wolff who presents it most fully in his *Philosophia Prima, sive Ontologia,* Frankfurt and Leipzig, Rengeriana Press, 1730, pp. 667, n. 908; p. 245, n. 310. We shall attempt to show that where for the moderns, contingency and capability of being and not being has a logico-metaphysical sense and is coextensive with finite being, for St. Thomas these words had a physico-metaphysical meaning and denoted, not the whole of finite beings but one supreme class of created nature.

that is to say, those beings which are generable and corruptible.[39] Immediately set over against these are beings in whose natures, once actualized, there is no capability of not being, beings which are "simply and absolutely necessary,"[40] ingenerable and incorruptible. The capability here referred to is not *objective possibility* (aptitude for existence) but rather *subjective passive potentiality* which has its root in a matter that is receptive of any number of forms indifferently and is not so actualized by any one as to exhaust its potentiality for another.[41] St. Thomas' words are very definite on the matter.

> "Some there are among created things which exist simply and with absolute necessity. These are such as have no possibility of not being. Others, however, are so produced, . . . by God that in their very nature, themselves, there is

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[39] *C. G.* I, 15, Amplius: "Videmus in mundo quaedam quae sunt possibilia esse et non esse, sc. generabilia et corruptibilia". The same thought is expressed in *S. T.* I, 2, 3c tertia via. See also *C. G.* II, 15, Praeterea.

[40] The qualifying adjectives "simply and absolutely" are somewhat stronger than one is accustomed to use relative to the necessity that exists in the natures of finite beings yet St. Thomas did not falter in using them. Cf. *C. G.* II, 30: "Qualiter in rebus creatis esse possit *necessitas absoluta*".

[41] Our consideration of contingency, and necessity regards *only* the *nature of these beings in themselves.* These same beings may be viewed as contingent or necessary relative to the manner in which they proceed from their proximate causes. If these causes act with an imposed and absolute determination that is unimpedable, then their effects are taken to be necessary, i. e., incapable of not being. If, however, they proceed either from voluntary and free causes or from natural causes which act with an imposed but hypothetical determination, i.e. with a necessity which may fall short of the attainment of their effects due to the debility of their active powers or to counteracting efficient causes or to the indisposition of matter then the effects are contingent, capable of not being. Thus in thomistic physical theory an absolute necessity would attach to the movements of the heavenly bodies, a natural contingency to the effects of voluntary or impedable natural causes. See supra, pp. 289-290 for this distinction of necessary and contingent causes and their effects. This type of necessity and contingency is *not* our concern in the present instance.

> potency to non-being; this derives from the fact that the matter of which they are composed is in potency to another form."[42]

He goes on to say that purely immaterial beings and even (!) material beings whose matter does not exist in potency to any other form, but whose forms perfectly adequate and exhaust the potency of matter exist with simple and absolute necessity.[43] The point to be noted is that there exist created beings in whom there is no potency to non being, caused beings which exist (though they are not caused) with necessity.[44] It follows, therefore, that in the strictly thomistic sense of the words *there are beings that are caused which are nevertheless not contingent,* a. v. necessary finite beings which have a cause of their necessity. In his opinion, the contingent aad the necessary together constitute the two supreme categories of existing finite beings. Obviously then the proposition: "omne quod possibile esse et non esse habet causam" in the sense of those terms just described would be an insufficient precision of the principle of causality for the simple reason that it lacks universality, does not extend to everything that is caused.[45].

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[42] *C. G.* II, 30: "Sunt enim quaedam, in rebus creatis quae simpliciter et absolute necesse est esse, in quibus non est possibilitas ad non esse. Quaedam autem res sic sunt a Deo in esse productae, ut in earum natura sit potentia ad non esse; quod quidem contingit ex hoc quod materia in eis est in potentia ad aliam formam." Cf. *De Pot.* 5, 3c.

[43] The material beings of which he speaks are, as we have noted before, the heavenly bodies. The immaterial beings are the Angelic choirs and human souls.

[44] Should the objection be urged that whatever comes from nothingness of itself tends to nothingness and consequently in all creatures there is a potentiality for non being, St. Thomas answers by stating that the consequent does not follow. Beings come from nothing not by reason of any potency of their being but by the power of God, so they tend to nothing (omnino nihil) not by a subjective potency but by the withdrawing of the objective power of God. (Cf. *C. G.* II, 30, Sunt, enim).

[45] In connection with this one may observe that it is somewhat inexact to speak of the "tertia via" in St. Thomas' proofs for the existence of God (*S. T.* I, 3, 2c; *C. G.* I, 15; *ibid.* II, 15) as the "argument from contingency". This is to overlook the fact that he argues from the con-

This limitation of the proposition relative to its extension is however something quite apart from its certainty and ontological validity. Turning briefly to this distinct question for the sake of completing the consideration of the formula, we may say that as it stands, it is as evident as those which have preceded, i. e., it belongs to the second type of necessary propositions in which we find *per se* predication. "Being caused" is not of the essence of the existent which is capable of being and not being. Nevertheless such a being is a proper subject for causal action and cannot exist without being caused. Just as causation is the communication by action of existence or being to that which does not possess it of itself, so being caused is the reception of such existence in a being that is not its own existence. But whatever else a being that is indifferent to existence (i. e., a being capable of being and not being) may be, this much is certain, that basically at least its essence is not its existence.[46] It is therefore only such a being which can be the proper subject of causation, and, if it actually exists or is conceived as existing it much actually be caused or (keeping it in the conceptual order) it cannot in thought be regarded as uncaused.[47] So much for the analysis of the

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tingent to the necessary which have a cause of their necessity and only then to the Being who is "per seipsum necessarium".

[46] St. Thomas notes that the reason why a "contingent being requires a cause is not simply because it can *not-be*. If that were the ultimate reason then "necessary beings" would all be uncaused. A more radical explanation which extends to necessary beings is that they would not exist if their causes were not, a.v. they would be nothing if left to themselves. But this simply means a being which is not its own existence, a being which is such by participation. Cf. *S. T.* I, 44, 1, 2m: "Non . . . propter hoc solum requiritur causa agens quia effectus potest non esse; sed quia effectus non esset si causa non esset."

[47] At this point it may be well to note that throughout these analyses of the various formulae, the subject of each proposition must always be regarded as an *existent,* i.e. as *being,* viewed participially *(ens ut existens).* If they were simply regarded as being, viewed nominally (i.e., as a noun *ens ut ens*), as merely possible, one would never arrive at the necessary connection between subject and predicate. The reason is that being in motion, inceptive being, contingent being as such need not be caused since they *need* not exist, and we know that "being caused" is precisely

present formula. Its certitude and necessity are clear beyond question, but its limited extension would seem to necessitate one's looking elsewhere for a more ultimate and embracing expression of the principle of causality. There is proof that St. Thomas has done precisely this in the following formulas.

4. *Omnis compositio indiget aliquo componente . . . Componens autem est causa efficiens compositi.*[48]

Studying beings from a static viewpoint, St. Thomas perceived a more fundamental and universal ground for the necessity of causal relation than any that has been studied thus far. Among the many evident signs of finite beings' insufficiency is the fact that all, without exception, reveal themselves to be composites resulting from a union of two or more elements or factors distinct from each other—composites of subject and accidents, of essence and properties, of supposit and nature, of nature and actions, of matter and form—and even beyond the latter couplet, which are the essential principles of all bodies, there is the more profound and universal composition from which no creature is exempt, the composition of essence and existence. For St. Thomas, this undeniable fact of unity in multiplicity could mean but one thing—the unification of multiplicity. Anything and everything which is in any way dually constituted, a. v., anything which is not absolutely and in every respect simple must have a

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that which places a being outside the pale of the purely possible into the realm of the existential. Consequently these beings must be *considered as existing.* This does not mean that verification of the necessity of causal relation depends upon the *actual* existence in the transsubjective order, of existent beings in motion, inceptive existents, or existents that are capable of being and not being. The necessity of the relation between cause and effect would still obtain even though de facto no such beings actually existed. The propositions prescind from actual existence but must in all cases consider existence at least *ut significata,* i.e., as apprehended by a concept and united conceptually with the subject of each proposition. The hypothetical formulation of these propositions best brings out the meaning. *If* a being is actually in motion, *if* a being actually becomes or begins to be, *if* a contingent being actually exists, it must be caused.

[48] *C. G.* I, 18, Amplius.

cause.[49] For whatever is distinct from another does not convene with that other to form a unit unless there is some cause uniting them.[50]

Such formulas, as Fabro rightly observes, have a profound metaphysical worth. In them the relation of causal dependence certainly appears to have a solid basis.[51] Beings which are composite, by that very fact must be constituted of potency and act,[52] for things that are distinct are not actually compounded unless they are at least anteriorly in potency to such a union.[53] But what are in potency to oneness just as what are in potency to being are not unified nor *"entified"* except through the action of a moving or efficient cause. A composite, thesefore, is not a simple unit being, but a being of diverse parts which are *unified* into a single metaphysical or physical or even moral being. In other words there is *no unity* (and therefore no being) of things that are not absolutely simple *unless there is unification,* and that means *efficient causation.*[54]

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[49] *S. T.* I, 3, 7c, Tertio: "Omne compositum habet causam."

[50] *Ibid.:* "Quae . . . secundum se diversa sunt, non conveniunt in aliquod unum nisi per aliquam causam adunantem ipsa." Cf. *C. G.* III, 64, Adhuc.

[51] Cf. La critica difesa . . . " *op. cit.* vol. XXVIII, 1936, p. 129: "Le formule . . . della composizione reale hanno un profondo valore metafisico per il quale appare certamente fondata la relazione di dependenza . . . "

[52] Cf. *S. T.* I, 3, 7c Quarto: " . . . in omni composito oportet esse potentiam et actum . . . quia vel una partium est actus respectu alterius vel saltem omnes partes sunt in potentia respectu totius." Cf. *C. G.* I, 18, Nam, in omni.

[53] *C. G.* I, 18, Nam, in omni: "In omni composito, oportet esse actum et potentiam. Non enim plura possunt simpliciter fieri unum nisi aliquid ibi sit actus et aliquid potentia. Quae enim actu sunt non uniuntur, nisi quasi colligata vel sicut congregata. Quae non sunt unum simpliciter sunt sicut (in) potentia respectu unionis. Sunt enim unitae in actu postquam fuerint in potentia unibiles." It would be somewhat crude to suppose that the parts must necessarily exist segregately by a priority of time before the union is affected. All that causality requires is that the elements of the composite be prior to the *being* (that is, the *union*) of the composite by a priority of nature.

[54] St. Thomas in his commentary on Aristotle's *Metaphysics,* speaking

Again as with the other formulas the question is asked: of what nature is the evidence of this principle and in what does it consist? Again it seems that one may say that the evidence is *per se*, arrived at immediately [55] once the fullness of the terms

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primarily of beings composed of matter and form, says: "There is no cause unifying (faciens unum) those things which are composed of matter and form except that which moves the potency to act." (*In VIII Met.* 5, n. 1767, Cath. ed.). The implication of course is that composites need unifying causes. Had it been to his purpose he could have reversed the mode of expression and said: There is nothing composed of matter and form which is not *unified* by the cause which moves the potency to act. The extension of this principle to all actual composites is a step in keeping with this thought. We shall see, however, that it has been made explicit in regard to the creature composition of essence and existence.

[55] Note—by the word "immediately" when used in reference to the analysis and comparison of terms it should be remembered that St. Thomas apparently wished to exclude from *per se nota* judgments only those which are known by *"media" extrinsic* to the terms in their full comprehension (cf. *supra*, p. 333, n. 10). He would not, it seems, exclude means *intrinsic* to the concepts themselves. This statement is confirmed by St. Thomas' worthy commentator, Cardinal Cajetan. Speaking of the second mode of necessary predication the latter observes: "Ad propositionem per se secundo modo sufficit subjectum in esse definitioni praedicati, *per se vel per aliquid sibi intrinsecum*" (*Comm. in Post. Anal.* C, IV, lect. X, note i, Leonine Edit., vol. I). Thus, "being a substance" is certainly intrinsic to the essence of "man", and yet in analyzing the concept one arrives at the implied note of "substance" not immediately but only by means of the reduction of "homo" to "animal", "vivens", "corpus" and finally to "substantia". Now any properties belonging to these genera, ipso facto belong to man as a common though not specific property since man is at once all of these by his unitary rational form. It is obvious then that not all proper accidents predicated of man need be of a specific nature (as e.g. risibility) but may be of a common or generic nature, proper to man only through (by means of) superior subalternate genera (i.e. animal, vivens, corpus). Thus "endowed with a nervous system" is a generic property of man through (by means of) his animality; "capable of nourishing himself" is a generic property of man through his being animate; "having internal divisibility" is a generic property of man through his being a body. All of these would be predicated of man necessarily by the second type of *perseity*. They would be immediate to him in that they are proper to him through no *medium extrinsic* to his being, though one may recognize the necessary character of their attribution only

is comprehended. The perseity however is not of the first type. "Being caused" is neither the essence nor part of the essence of a composite existent. Essentially such a being bespeakes simply a union of diverse and constituent elements or parts, a realized unity amidst diversity, in which there is discernible something that is material and something that is formal, something that is potential and something that is actual. Such a being, viewed essentially, may remain eternally uncaused. Beyond this, the most that one can say from an analysis of its *essence* is that if it exists its extramental unity (being) has not its adequate and actual ground in its intrinsic principles (the component parts) alone. To say more (as e. g. that it must therefore have the adequate ground of its unity being in something apart from itself) would be to transcend bare analysis of the *essence* itself of the composite.

But if "being caused" is neither the essence nor part of the essence of the composite existent, nevertheless it belongs to it as a necessary property. It is a "proprium accidens" of the composite if the latter enters into its definition as proper matter. This is manifest from two differing viewpoints—from the viewpoint of potency and act and from the viewpoint of the transcendental relation of unity and being.

A. Potency and Act Perspective

"Being caused" is to receive an act to which a being is in

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through *intrinsic logical media.* It is somewhat analogous in this consideration of the necessity attaching to the various formulas expressive of causal relation. We have seen that "being caused" is a *quasi-proprium* of mobiles in motion, inceptive existents, contingent beings. It is necessary to note, however, that it is not a specific property (otherwise none but these could be caused). Rather is it a quasi-generic property since it is proper to something which is common to all, viz., the fact that none of these is its own existence. (We shall have occasion to observe further on that this fact, common also to the composite existent, is itself founded on a yet more ultimate notion, viz., the idea of participation. For the present, however, we pause on the fact that existence is essential to none of these). It is in view of this that "being caused" is as it were a "proprium accidens" of these other categories.

potency, by virtue of the action of another. Now a holistic entity of potential and actual parts such as a composite obviously is, is an act or perfection which the potential parts have received, since of themselves they have not the adequate ground for the act of oneness and being that is their perfection. Consequently if they have this act it is because it must have been caused by another. Being caused is therefore a quasi-proprium of their unitary being.

B. Perspective of the transcendental relation of oneness to being

To be caused is *to receive being*. This means to receive oneness or unity, *to be made one*.[56] But nothing is or can be *made one*, just as nothing *receives being* if it is absolutely simple with no composition whatsoever. Absolute simplicity, lack of composition of any kind postulate an *unmade unity*, an *uncaused being*. If it were to *receive* being, if it were *made* one, it would ipso facto be composite.[57] Its unity would be a unity of composition, not of simplicity. Nothing therefore is *made one* or *receives* being or *is caused* save what in some way contains or implies diversity or distinction of principles, as e. g., potency and act, matter and form, essence and existence. It is immediately obvious then that "being caused" is the unifying of different factors and elements into a holistic unit being, that is to say, the unifying of a composit (a holistic unit being of diverse parts). Composite being, therefore, is a necessary subject of causal action.

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[56] St. Thomas observes (*In VIII Met.* 5, n. 1767, Cath. Ed.): "It is similar to seek what the cause of a thing is and what is the cause of its being one; since each thing is one to the extent that it is (has being)." He goes on to say that potency and act are in some way one ("potentia et actus quodammodo unum sunt"). The immediate implication is that whenever diverse things are found united, i.e. forming one being, there must be a cause of that unity; and the cause of unity coincides with the cause of being. This cause, St. Thomas concludes must be the moving (efficient) cause. "Unde nulla causa est faciens unum ea quae sunt composita ex materia et forma nisi quod movet potentiam in actum." Cf. *S. T.* I, 65, 1c.

[57] St. Thomas speaking of an absolutely simple being says that in such a being essence and existence must be really identified, must be one and the same. For if they were really distinct it would by that very fact be no longer simple but composite. (Cf. *In Boet. de Hebdom.*, c. 2, Vivès, XXVIII, p. 473b: " . . . in quibus [i. e. simplicibus] necesse est quod ipsum esse, et id quod est, sit unum et idem realiter. Si enim esset aliud realiter id quod est et ipsum esse; jam non esset simplex, sed compositum." Note: he speaks here as though there could possibly be more than one such simple being. He later proves, however, that such simplicity is unique and proper to only one being). The conclusion that we may draw at this particular point is that if anything *receives being or is made one*, its essence cannot be its existence and consequently, its existence is a composite existence.

Formula based on Composition of essence and existence

The most important particularized expression and instance of composition in thomistic philosophy has already been alluded to, viz., that of essence and existence.[58] Because of the fact that the principle of real composition is most frequently enuntiated in terms of this combination as the ultimate expression of the principle of causality it merits separate notice. We may say, however, that in devoting further consideration to this expression of the principle it is not our intention to adduce proof that St. Thomas actually maintained the reality of the distinction between essence and existence in the objectified finite existent. We may be permitted to take for granted the conclusions at which Roland-Gosselin has arrived, viz., that for the historian of philosophy at least

> "the influences which de facto conditioned this doctrine and the principal thing at stake in the controversy with the Franciscan School—(i. e., safeguarding in opposition to the absolute simplicity of God, the composition in the angelic nature while denying to them entirely any matter even of a spiritual kind)—leaves no room for even the least doubt as to the intentions of the Angelic Doctor: *the existence which realizes the essence and finds therein its limitation, forms with the essence a veritable composite whose inseparable elements remain distinct before any rational consideration whatsoever.*"[59]

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[58] We say "particularized expression" to distinguish it from the most generalized expression of composition which would be that of potency and act. The latter includes all of the compositions which we have mentioned, even that of essence and existence.

Nor need we cite the argument which the Angelic Doctor used to uphold this daring thesis. We simply wish to pass judgment upon its acceptibility as the ultimate basis for the principle of causality.

a. As to its universality there would seem to be no doubt Here unquestionably in St. Thomas' mind is a concept which is coextensive with everything that can be called an effect. "It is of the 'ratio' of an effect," he affirms, "that in some way it be a composite: that at least its existence be other than its essence.[60] The same statement obviously could not be made of the subject of these other formulas. It is not of the essence of every effect that it be a mobile in motion, that it begin to be, that it be "contingent". Every effect, however, must be a composite at least of essence and existence, for being caused is the receiving or sharing of existence by that which is proximately potential to it, viz., essence.[61]

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[59] Roland-Gosselin, M.-D., *Le "de ente et essentia" de S. Thomas d'Aquin,* Kain, Belgique, Le Saulchoir, 1926, *Bibliotheque Thomiste,* vol. VIII, p. 197: " . . . les influences qui de fait, ont conditionné cette doctrine et l'enjeu principal de la controverse avec l'école franciscaine—qui était de sauvegarder, par opposition, à la simplicité absolue de Dieu, la composition des anges, tout en leur déniant une matière même spirituelle—ne permettent pas le moindre doute sur les intentions du Docteur angélique: *l'être qui réalise l'essence et trouve en elle sa limite, forme avec l'essence un véritable composé, dont les éléments inseparables demeurent distincts avant toute considération rationelle."* (Italics mine) For confirmation of this conclusion cf. M. Grabmann, *Doctrina S. Thomae de distinctione reali inter essentiam et esse, ex documentis ineditis saeculi XIII illustrata,* in *Acta Hebdomadae Thomisticae,* 1924. A brief but meaty resume of the proof that this was St. Thomas' conviction, drawn from his own writings, from the attitude of his contemporaries and from the judgment of history may be found in Jos. Gredt, *Elementa Phil. Aris-Thomist.,* vol. II, pp. 105-106, 112-114.

[60] *S. T.* I, 3, 7, 1m: "Est autem hoc de ratione causati, quod sit aliquo modo compositum: quia ad minus esse eius est aliud quam quod quid est."

[61] Essence *en rapport* with existence (except in the case where the two are really identifid) is invariably spoken of a potency relative to act. Existence is actually beyond question, act par excellens, the actuality of all act and the perfection of all perfections (cf. *supra,* p. 324). Essence on the other hand is potency—not pure potency like matter, for it is

b. That every such composite must be caused is clear beyond all dispute. The evidence is immediate by reason of the second type of perseity. If efficient causation is the communicating of being (existence) to that which of itself has no existence but is in potency to it, by the action of that which already exists (and one cannot conceive of efficient causation otherwise) then if ever and whenever one finds such a potential being existing or even conceives of it as existing, (and this would be so wherever one finds or thinks of a composite in which essence and existence are really distinct) one immediately recognizes that it must be caused.

c. We may conclude this consideration by undertaking to ascertain whether the formula based on the real composition of essence and existence represents, for St. Thomas, the ultimate expression of the principle of causality. It would seem that one must answer in the negative. One reason for this statement that comes immediately to mind is the fact that among the proofs which St. Thomas employs in support of his insistence on this real composition there is one group, (used, to be sure, rather infrequently) in which he argues to the real composition from *the limited character of created being.*[62] *This type of proof*

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constituted by the act of form, but potency with respect to existence; it doesn't possess of itself the existence it receives from another, it participates in it, it is a subject of it. Cf. *De Ente et Essentia,* c. 5, n. 5 (Taurini: Marietti, 1932, pp. 25-26): "Omne quod recipit aliquid ab alio est in potentia respectu illius; et hoc quod receptum est in eo, est actus ejus. Ergo oportet quod ipsa forma vel quidditas quae est intelligentia (Thomas speaks here specifically of angelic natures) sit in potentia respectu esse quod a Deo recipit." See also: *In Boet. de Trin.* 5, 4, 4m, Vivès, vol. XXVIII, p. 539a; *In I Sent.* 8, 5, 3c; *De Pot.* 7, 2, 9m; *Quodl.* VII, q. 3, a. 7c; IX, q. 4, a. 6c; *S. T.* I, 3, 4c; 50, 2, 3m; 75, 4m; Thomas de Vio, Cajetan, *Comm. in "de ente et essentia" D. Thom. Aquinatis,* Laurent edit., Taurini: Marietti, 1934, pp. 152-153.

[62] Cf. Roland-Gosselin, *op. cit., Le "de ente et essentia" . . . Bibliotheque Thomiste,* vol. VIII, pp. 187-189, praesert. p. 189. The two main lines of proof are based (1) upon the condition of essence such as we conceive it (i.e. without the note of existence) and (2) upon the exigencies of the divine being in whom essence and existence are and must be really, and indeed uniquely identified. The third group of proofs, viz., those based upon

already presupposes a knowledge of what is finite being and why it is finite, a knowledge moreover of the fact of its being created or caused, a knowledge finally of the reason for the necessity under which it lies of being so caused and dependent upon another.

It would appear then that there is discernible in nature something more ultimate than, and, in ontological reality as well as psychological genesis, something prior to, the actuality and the knowledge of real composition, something which reveals the "propter quid" of this composition. This something is the reality of *being by participation.* It will form the burden of the next and final section of this chapter to show that in the mind of St. Thomas the concept of being by participation is regarded as a more radical (though not more universal) basis for the expression of the principle of causality than the idea of composition. For the present it is of interest simply to show that, in the opinion of the Angelic Doctor, the real duality of essence and existence in beings other than God is found to be an immediate derivation from the concept of being by participation. Fabro is perfectly correct, it seems, in expressing the personal view that the thesis of the real distinction takes its rise in thomism as a function of the theory of participation. It is but the first application of this theory to finite being considered in its static aspect.[63] This well reflects the mind of the Master. In several places does St. Thomas speak of the distinction between essence and existence, their relation as potency to act and their real composition as following from the notion of participation. Thus, after affirming that there can be but one absolutely simple substance, he asserts

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the limited character of created being is used with relative rarity especially in St. Thomas' later writings. A typical example of this kind of proof may be found in *Contra Gentiles* (II, 52, Amplius, Substantia) wherein St. Thomas argues that the existence of no created being can be its own substance but must belong to it "per aliud, alias non esset creatum."

[63] "La difesa critica . . . " *op. cit.,* p. 129: " . . . mi è parso che la tesi della distinzione reale" (of essence and existence) "sorga nel tomismo in funzione della teoria della partecipazione: essa ne forma la prima applicazione all 'essere finito, considerato sotto l'aspetto statico . . . "

that every substance after this must "participate in being (existence)". But everything that participates is composed of the participant and that which is participated, and the former is in potency with respect to the latter. No matter how simple then a substance may be (with the exception of the first substance or essence which is God) it must be in itself a potential existent (and cannot be existence itself).[64] And since the existence which is shared is compared to the substance sharing in it, as its act,[65] the affirmation of composition with real distinction is but a step from this.

> "When something is predicated of another by participation there must be something beyond that which is participated: and therefore in every creature, the creature *having* existence is one thing and its existence is another. This is (precisely) what Boetius (means when he) says in his book, De Hebdomadibus, that in everything which is below the first (being) existence and essence are different."[66]

Again

> "Whatever belongs to a being by participation is not its own substance" (But existence belongs to all beings, with the exception of the Prime Agent, by participation.) "Therefore, it is impossible that the substance of any being, apart from the Prime Agent, be its own existence."[67]

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[64] Cf. *In VIII Phy.* 21, Vivès, vol. XXII, pp. 701b-702a: "Substantia simplex quae est ipsum esse subsistens, posset esse nisi una. Omnis ergo substantia, quae est post primam substantiam simplicem participat esse. Omne autem participans componitur ex participante et participato, et participans est in potentia ad participatum: ergo substantia quantumcumque simplex, post primam substantiam simplicem, est potentia essendi."

[65] S. T. I, 75, 5, 4m; *De Subst. Separ.* c. 3, Vivès, vol. XXVII, p. 278a.

[66] Quodl. II, q. 2, a. 3c: "Quandocumque autem aliquid praedicatur de altero per participationem, oportet ibi aliquid esse praeter id quod participatur; et ideo in qualibet creatura est aliud ipsa creatura quae habet esse, et ipsum esse ejus; et hoc est quod Boetius dicit in lib. de Hebdomad., quod *in omni eo quod est citra primum, aliud est esse et quod est.*"

[67] *C. G.* II, 52, Amplius, Ipsum: "Quod . . . competit alicui per participationem, non est substantia ejus. Impossibile est igitur quod substantia alicujus entis, praeter agens primum, sit ipsum esse."

This thought is summed up most briefly in the statement that "in respect of beings (that are such) through participation, it is necessary that the existence and the quiddity of the being be diverse."[68]

These texts leave no doubt as to the view of St. Thomas on the question of the relation of real composition to "being (existence) by participation". His train of thought seems to be as follows. The existence of every being apart from God is a participated, a shared existence. From this one may make the following immediate inferences. No such being is its own existence. On the contrary, existence is something distinct from and does not constitute essence. Every such existent then is a composite of essence and participated existence, and is a composite ultimately and radically because its existence *is* participated. In the light of this it is clear that what formally makes such composites *be in act* is not the essence or essential form but rather this act of participated existence. Were its essence or essential form its *raison d'être* it would not really be composed, but would be a simple uncaused existent to which existence belongs essentially. But it is precisely because existence is beyond the essence and is therefore participated that existents are composite. By way of transition to the next section we may add that it is this very participated being which contains the ultimate reason why every such composite is caused.

5. *Ex hoc quod aliquid est ens per participationem sequitur quod sit causatum ab ailo.*[69]

A. Full expression of the formula

In the notion of "being by participation" is found a concept which in its metaphysical transparency and purity, in its finite and ultimate universality, and in its obvious and inherent insufficiency seems to be marked out in this assayal of thomistic etiology as the most suitable basis for the formulation of the principle of causality. This can be gathered not from any direct statement to this effect but rather by implication from the frequency with which the Angelic Doctor appeals to it or to immediately cognate expressions. The thought is peculiarly platonic rather than aristotelian yet it has been relieved of the purely exemplar-character that marred it in its platonic setting. The being by participation is not merely the reflection, the similitude and resemblance of the being which is such "per essentiam." Rather it is the necessary subject of the *causal action* of another,[70] and ultimately of that other which is unrecipient and imparticipate being.

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[68] *In II Post. Anal.* 6, Vivès, vol. XXII, p. 247a: " . . . in omnibus . . . quae sunt entia per participationem, oportet quod sit aliud esse et quidditas entis."

[69] *S. T.* I, 44, 1, 1c.

Since, in the words of Maritain, the principle of causality is "primarily existential" (even though only conjecturally and conceptually so in the sense noted above),[71] in other words, since it regards "the production of existence", "the efficacious vocation to existence",[72] it is natural that the most common formula which one encounters in the writings of St. Thomas is that which intones the prime immediate division of existential beng (being whose essence is to exist and being which exists by participation) and affirms in terms of the ultimate and uniquely proper cause of existence the dependence of the one upon the other. Thus: "those beings which exist by participation are reduced to that which exists by (reason of) essence, as to (their) cause."[73] In thus causally relating participated existents immediately with the being who is existent by essence, St. Thomas did not mean to imply that none but "ens per essentiam" is the cause of existence in others but only that such a being must ultimately and properly be the cause of participated existence, (the only existence possible apart from its own being, since its own imparticipate being is unique).[74] Other beings, themselves partakers of existence, may impart existence to yet others in turn but, at noted above,[75] only instrumentally.

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[70] *De Subst. Separ.* c. 3. Vivès, XXVII, p. 278a: "Omne participans aliquid accipit id quod participat ab eo a quo participat: et quantum ad hoc, id a quo participat est causa ipsius; sicut aer habet lumen participatum a sole qui est causa illuminationis ipsius."

[71] *V.s.,* n. 47, p. 347.

[72] Jacques Maritain, *A Preface to Metaphysics,* London: Sheed and Ward, 1939, p. 135.

[73] *Comp. Theol.* I, c. 123, Vivès, XXVII, p. 48a: "Ea quae sunt per participationem, reducitur in id quod est per essentiam sicut in causam." Cp. *ibid.* c. 67, p. 22b-23a: "Omne quod habet aliquid per participationem, reducitur in id quod habet illus per essentiam, sicut in principium et causam." Cf. *S. T.* I, 44, 1c; 49, 3, ob. 4; *De Reg. Princip.* III, 9 (v.f.); *In Evang. B. Joann., Prol.* (Taurini, Marietti, 1925, 4th edit., p. 2); *In*

B. *Precision of Concepts*

Before proceeding further it may be well to precise the meaning of participation and the kind of participation with which this expression of the principle of causality treats—to emphasize the fact that it is participated existence (ens-existentia) and not participated essence (ens-essentia) which is its prime concern.

To participate in something is to take as it were a part of something else.[76] Abbé Penido sums up very clearly the three ways in which one can conceive of participation.[77] One participates in something if one has

(a) part in the nature itself of another, as a son shares the nature of the father; or
(b) part of a nature which is different, though the part shared exists univocally in the other, as the heat of fire, and that induced in iron; or
(c) part—by way of imitation or likeness—in the nature which is found by essence in another, like the imprint of a seal or a photographic image. In this latter there

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Evang. B. Joann., VIII, lect. 3, n. 6 (*ibid.* p. 242); *In De Causis,* lect. 9, Vivès, XXVI, p. 539a; *ibid.* lect. 32, p. 570b.

[74] Cf. *S. T.* I, 11, 3c; *C. G.* I, 13, *ibid.* 43. Herein are contained proofs for the absolute uniqueness of the being who is such by its essence, viz., God.

[75] *V. s.* pp. 280, 299, 301, 318.

[76] *In Boet. de Hebd.* 1. 2, Vivès, XXVIII, p. 471b-472a: " . . . est autem participare quasi partem capere."

[77] M. T.-L. Penido, *Le Rôle de l'Analogie en Théologie Dogmatique, Bibliothèque Thomiste,* XV, Paris, J. Vrin, 1931, p. 360.

> is resemblance but not communication of nature. Here in a true sense is analogical participation.

Now in the expression, *every being by participation is caused by that which is being by essence,* the word *participation* can be taken in none but the last sense, i. e., in the sense of analogical participation. The nature of the "ens per essentiam" cannot be diversified nor multiplied extrinsically,[78] nor can something of its nature be imparted in a univocal manner, even supposing this were "secundum remissionem", that is to say to a diminished degree.[79] In reality participation must signify, not having a part but rather imitating partially. As St. Thomas remarks:

> "Creatures are not said to participate in the divine nature as though they have a share in its essence but because they are constituted in existence after a likeness to the divine goodness according to which they imitate it, not perfectly but partially."[80]

Every perfection, however, which exists outside of the "ens per essentiam" is in some measure, more or less remote, a partial and diminished similitude (analagous participation) of that being. Granting now that all of these participations are imperfect likenesses of the being "per essentiam" nevertheless one can discern that some of these perfections are possessed *totally and perfectly* by the natures to which they belong, as being a rational animal totally and perfectly adequates the nature of man. The human substance itself is an imperfect participation (in the sense of likeness) of the self-existent Being, yet it is not imperfectly and only partially shared in by human nature, as is the case (true indeed of all composite essences) with the genus that it shares, as well as (in a yet more imperfect manner since they are not part of the essence) with the accidents of its being. Yet all these participations whether substantially or accidentally possessed, whether constituting the essence of only part of the essence or simply inhering in the essence as an accident—all of these would remain as pure possibiles with no more than ideal being about them, did they not share a common perfection (similitude, likeness, participation) which englobes them all, which formally actualizes each one of them, which itself is neither a participation substantially possessed (though it is the act of the substance), nor on the other hand merely accidentally possessed (though it cannot subsist of and in itself)—we refer to *participated existence.* It is this participation, common to everything that may be termed extra-mental and actual, exclusively proper to none, with which the principle of causality is concerned. It is true that essences are efficiently caused, actively produced, it is true that accidents are made to inhere in essence. But none of these can be efficiently caused apart from participated existence, since none are caused unless they are actualized and none are actualized unless they partake of that perfection which is the actuality of all acts—existence itself. In this connection the words of Professor Van Steenberghen (written in another context) are particularly apposite in bringing out the reducibility of essence (and accidents) to existence in the actual being:

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[78] Cf. praesert. *C. G.* I, 42; II, 52, Amplius, Esse.

[79] *S. T.* I, 4, 3, 1m.

[80] *In II Sent.* 17, 1, 1, 6m: " . . . creaturae non dicuntur divinam bonitatem participare quasi partem essentiae suae, sed quia similitudine divinae bonitatis in esse constituuntur, secundum quam non perfecte divinam bonitatem imitantur, sed ex parte." Cf. *S. T.* I, 6, 4c; 75, 5, 1m; *In De Divin. Nomin.*, c. 11, lect. 4, Vivès, XXIX, p. 566.

> "Existence and essence mutually imply one another and perfectly complement one another: in the world of our experience things cannot *exist* without having a *suchness* about them (sans être tel: i. e., without having taleity or determinate essence) and they cannot be *such* without *existing.* What does not exist is nothing; what is not an essence is not an existence, a reality. One cannot "disessentiate' nor 'disexistentiate' an object." [82]

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[81] Cf. *In IV Met.* 2, n. 558, Cath. Edit.; Quodl. II, 2, 3c.

[82] F. Van Steenberghen, "La composition constitutive de l'être fini", *Rev. Neo-Scol. de Phil.* XLI, 1938, p. 501: " . . . l'*être* et l'*essence* s'impliquent mutuellement et se recouvrent parfaitement: dans le monde de notre expérience, on ne peut *être* sans être *tel,* et on ne peut être *tel*

One sees from this that there is no causality of essence unless that essence is made to exist, nor, *vice versa,* can any existence undistinguished by essence be caused. In any case the consideration of beings as essences (ens ut essentia) enters only incidentally into the principle of causality. What is important is whether these essences have participated existence (ens ut existentia). An elaborated expression then of the principle of causality according to the concept of participation would be: every being (ens ut essentia) that has participated existence (ens ut existentia) is caused by that Being which is existence by very essence Actually, however, it is sufficient to say that: whatever exists by participation is caused by another. (For the purposes of the principle one need not specify immediately whether that other is itself a partaker in existence or Existent Being itself.) No more than this is implied in the statement of St. Thomas which introduces this section. "From the fact that something is being by participation it follows that it is caused by another."[83]

Many applications of this formula are found to refer directly only to being *qua* substance (or *qua* accident) and as constituted in genera and species. Thus one finds it expressed in terms of being that is imperfect in any genus,[84] being that is particularly in act,[85] being that *is* in some way or other,[86] being that is acci-

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sans *être.* Ce qui n'*est* pas, n'est *rien;* ce qui n'est pas un *essence,* n'est pas un *être,* ou une *réalité.* On ne peut ni 'désessencier', ni 'désexistencier' un objet." By the two latter expressions, obviously coined, the author undoubtedly means that one can no more strip an object of its essence than one could separate it from its existence (and of course have it remain as that object).

[83] *S. T.* I, 44, 1, 1m. Commenting upon this response Abbé Penido notes that in this connection the use of "ens" is to be understood in the sense of "l'être-existence" and not "l'être-essence." Cf. *op. cit.,* p. 51. Only in the former sense can one understand how St. Thomas can make the extremely significant remark that relation to a cause does not enter into the definition (essence) of the being by participation (i.e. the being sharing existence.) See *ibid.* I, 44, 1, 1m. The significance of these words shall be stressed very shortly.

[84] Cf. *S. T.* I, 4, 1, 2m; 14, 6, 2m; *C. G.* II, 15 Item, Imperfecta; *Ibid.,* 97, Item, si; *Comp. Theol.* I, c. 20, Vivès, XXVII, p. 8a, etc., etc.

[85] Cf. *De Pot.* e, 1c.

dental,[87] being that exists in diminished state.[88] All of these, however, have their significance as far as causality is concerned, ultimately and finally in terms of being (existence) by participation.[89] Since this is so we need not delay on these individual expressions but may pass to the analysis of the general formula in the light of which they have any meaning and connection with causality.

C. Character of the Formula

a) Universality

The expression of the principle of causality based on the concept of participated existence is unquestionably universal in extent. By this we mean not merely that the term itself, participant of existence, is taken in its entire denotation (that is assumed), but that it purports to equate this type of participation with everything that may be designated as an effect. In

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[86] Cf. *De Aeternit. Mundi,* Vivès, XXVII, p. 450a.

[87] Cf. *In I Sent.* 2, 1, 2, Praeterea.

[88] Cf. *C. G.* II, 11, 15, Amplius.

[89] One must acknowledge the correctness of Fabro's viewpoint (*op. cit.* "La difesa critica . . . ", p. 136) in saying that the dialectical ascent offered by the concept of participation is not exclusively applied to being (existence), but permeates all the other transcendental aspects of the real such as unity, truth, goodness, beauty and also all pure perfections such as life, intelligence, wisdom, etc. These assuredly when found in varying degrees postulate a Being who *is* these perfections by very essence. One therefore appreciates the aptness touched with lyricism in the thought that: "ogni bontà, ogni forma di bellezza, ogni chiarore di verità, ogni palpito vitale che spunti in questo mondo non è che deficiente immagine ed effetto inadeguato della bontà, della bellezza, della verità, della vita per essenza" (*loc. cit.*). One recognizes, too, that the supreme exemplarity of this being *per essentiam* contains the note of efficiency with respect to its exemplates and analogues (*l.c.* footnote 2). We may say, however, that in seeking a formula of the principle of causality one need not be concerned with more than is necessary and sufficient. The concept of *existence by participation* satisfies this need, and sufficiency, and St. Thomas seemed to be well aware of this. To explicate the transcendental properties of being (ut essentia) is unnecessary, save as illustrations of the principle of causality; and to consider the concepts of participated wisdom, life, etc., is insufficient, since these are not attributable to everything that may be called an effect.

other words there is nothing efficiently caused which is not a partaker in existence. Participated existence then constitutes the most common denominator and immediate indicator of produced being.

b) Necessity

The necessity it possesses is that of the second mode of *per se* known propositions. On this point St. Thomas has explicitly committed himself in a passage of the Summa Theologica that has not received the attention it merits. In a question which reads: "Utrum sit necessarium omne ens esse creatum a Deo" (Prima Pars, q. 44), the objection (no. 1) is made:

> "It would seem unnecessary for everything to be created by God. For there is nothing to prevent one's meeting up with something which is lacking in that which does not pertain to its essence (ratio). Just as one may come across a man who is not white. Now it seems that the relation of effect to cause is like this, i. e., it is not of the essence of beings, because one can conceive (understand) beings without such a relation. Therefore they can exist without being related to a cause. There is nothing therefore to prevent some things from being uncreated by God."[90]

To this St. Thomas makes reply:

> *"Although the relation to a cause does not enter into the definition of the being which is caused, nevertheless, it follows upon those things which are of its 'ratio', since from the fact that something is being by participation it follows that it is caused by another. Hence a being of this nature cannot but be caused just as man cannot but be capable of laughter.* It is, however, due to the fact that being caused is

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[90] *S. T.* I, 44, ob. 1: "Videtur quod non sit necessarium omne ens esse creatum a Deo. Nihil enim prohibet inveniri rem sine eo quod non est de ratione rei; sicut hominem sine albedine. Sed habitudo causati ad causam non videtur esse de ratione entium, quia sine hac possunt aliqua entia intelligi. Ergo sine hac possunt esse. Ergo nihil prohibet esse aliqua entia non creata a Deo."

> not of the 'ratio' of being (taken) simply that it is possible to discover (the existence of) such a reality as an uncaused being."[91]

Examined closely this passage reveals the following:

1. "Being caused" is not of the essence of *being taken simply*. If it were there could be no such reality as an *uncaused being*, which is evidently false.

2. Nor does "being caused" enter into the definition of the *being which is caused and which exists by participation*. This goes a step further than the first statement. Being caused is not only not of the essences of being taken simply; it is not even the essence (nor part of the essence) of the being which has participated existence. The significance of this lies in the fact that it straightway rules out any attempt to say that the principle of causality (however it may be expressed) is a necessary proposition of the first mode of perseity. This latter, it is recalled, is a proposition in which the predicate is *"de ratione subjecti"*, i. e., is either the definition or part of the definition of the subject—a characteristic here denied of the idea "being caused".

3. Nevertheless "being caused" follows immediately upon (i. e., flows directly from) the essence of the being that exists by participation, just as being risible flows directly from the nature of man, as its property. Now it is generally recognized that St. Thomas regarded the proposition "man is risible" as a judgment *per se* known of the second type of necessity, that viz., in which the subject is in the definition of the predicate and in which the latter is a proper accident of the former.[92] Arguing a *pari* it would appear that the Angelic Doctor definitely adjudges the

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[91] *Ibid.* 1m: " . . . licet habitudo ad causam non intret definitionem entis, quod est causatum, tamen consequitur ad ea quae sunt de ejus ratione, quia ex hoc quod aliquid est ens per participationem, sequitur, quod sit causatum ab alio. Unde hujusmodi ens non potest esse quin sit causatum; sicut nec homo, quin sit risibilis. Sed quia esse causatum non est de ratione entis simpliciter, propter hoc invenitur aliquid ens non causatum."

[92] Cf. *In I Post. Anal.* 9, Vivès, XXII, p. 127b.

principle of causality (expressed here in terms of participation) as belonging to the second mode of *per se* predication. Just as a man cannot but be risible, since man is the proper subject of a faculty which is defined as the capacity (obviously the property of a rational animal only) of expressing through corporeal organs (implying a living sentient being, an animal) the intellectual appreciation of the unusual juxtaposition of two ideas not ordinarily associated (implying a rational being); so too a being by participation cannot but be caused since such a being alone is the proper subject of being caused, such a being alone is a being which is produced. For a being that is efficiently caused or produced is evidently a being to whom existence is given (partially) or imparted by the action of another, a being then which exists by participation, a being whose only existence is a shared existence. Moreover, just as in the case of man one can cognize his quiddity apart from his faculties and properties, yet his existence without faculties and properties is inconceivable[93] so too in regard to participated existents, one can think of their quiddity apart from their efficient causes, yet their existence without such a cause is inconceivable and impossible.

c) Ultimate Character

No more ultimate formulation of the principle of causality is discoverable than that which finds its expression in the notion of participation—and specifically—in the participation of existence. It is not difficult to see that the fact of participated existence is the ultimate confirmation of the truth that beings are composite, contingent, inceptive or moved; similarly it is not difficult to see that the ultimate reason why composite existents, inceptive existents, contingent and moved existents are all necessary subjects of the characteristic we call "being caused" is this same participated existence. Furthermore, beyond existence, which like every other perfection, is a similitude of (and therefore an analogical participation in) the Being *per essentiam,* there is no ulterior perfection in which it may participate and which would further reveal its own need of being caused. Rather existence is that perfection which is ultimately imparted and communicated to every other perfection if it is to be actual and hence it is in immediate relation of dependence with its proper cause. In other words, it is the link connecting every conceivable existent, apart from the unique imparticipate being, in a necessary relation of dependence, to a cause, while between itself and its acting cause there is no other link. If, therefore, every actual being which is in motion or commences to be is caused, if every actual being which is capable of being and not being is produced, if every actual composite of substance and accidents, of matter and form, of essence and existence is a necessary term of efficient action, if every being which is not its own existence and which, if left to itself, would be inexistent, is an effect, the reason that is common to all, in the final analysis, is that the act whereby they exist (actus essendi) is a limited, partial, participated form which immediately reveals the necessary relation of dependence in which all such beings stand with respect to an efficient cause.

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[93] Cf. *QQ. DD. De Anima,* q. un., a. 12, 7m.

One is not to gather from this that these other formulas are any the less evident because their insufficiency with respect to being is ultimately radicated in the "imperfectible form", i. e., existence[94] whereby moved, inceptive, contingent and composite beings are in act. This insufficiency is sufficiently well attested to on other scores such as temporal commencement, movement, generation and corruption, and potentiality. The certitude therefore of these less extensive or, at best, penultimate formulas need not wait upon the proof for participated existence. Each is valid and evident and necessary for the segment or realm of reality to which it applies. What is affirmed, however, is simply that the ultimate reason for the evidence they possess is contained in the formula based upon participated existence, the reality to which thy are all actually reducible.

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[94] We say "imperfectible form" because, as previously noted, existence, which is the act of essence is in itself perfect, an unmixed or pure perfection. Nothing can actuate or perfect it. It is, however, susceptible of limitation or imperfection from the essence into which it is received. While it is formally perfective of this essence it is itself delimited and made imperfect by the very formality of actuating a potency, even if it is a "potentia essendi".

Universal, necessary and ultimate as is this formulation of the principle of causality there would seem to be no reason why one would not be justified in numbering it among the first principles of thought and being in thomistic metaphysics. It merits this rating since all inductive sciences must admit it and none can dispense with making an appeal to it, at least implicitly, since it is "related to being as being", since it dominates the entire sphere of existential reality, the prime, imparticipate Being alone excepted. One should observe, however, that in its ultimate expression it is not psychologically prior to other truths, nor yet to other expressions of the principle of causality. As a matter of fact in the order of psychological genesis there must be arguments *for* the existence of participated being before there can be arguments *from* the same and at least some of the arguments *pro* already presupposes some expression of the principle of causality. Nevertheless, in the logical order, that is, in the order in which there is a reasoned process from the most general truths to particular expressions of these truths or to demonstrated conclusions [95] one must say that the most ultimate formulation of the principle of causality takes precedence over all others. Maritain has made the significant observation that:

> "the notion of being divides before the mind into *self-existent* or absolutely necessary *being,* (*and this, moreover, before the existence of a self-existing being has been proved*) and being which is not self-existent but *contingent.*"[96]

The "self-existent" being of which he speaks is of course the being *per essentiam,* while the "being which is not self-existent" is simply a negative expression of the idea of being *per participationem.* Here, then, we have the first immediate division of being relative to existence and this, be it noted, prior to the proof of the existence of essentially subsistent being. Clearly the first principle with regard to the existence of participative being is the principle of causality based upon the note of participated existence.

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[95] Cf. J. B. Sullivan, *First Principles of Thought and Being,* C. U. Press, 1939, pp. 24, 139.

[96] *Preface to Metaphysics,* p. 132. Parentheses and italics within the parentheses are mine. Italics without the parentheses are his or at least the translator's.

Before concluding this section and chapter, it seems opportune, by way of showing the extreme practicableness of the principle of causality expressed in terms of participation, to indicate briefly the argument *for* the existence of participative being and participated existence. One proof has already been cited in demonstrating the fact and need of a Creator.[97] At that time it was pointed out that there is a Being which is not only its own existence (proven from the fact that there exists a being who is Pure Act and Prime Efficient Cause—both of which depend for their knowableness *quoad nos* upon certain particularized expressions of the principle of causality) but that He is the unique self-existent being (proven from His absolute simplicity, His illimitable perfection, the order of the universe.)[98] Here, however, we wish to take a slightly different tack, one which avoids, it seems, any semblance of dependence upon other expressions of the principle of causality.

In the second book of the Contra Gentiles, chapter 15, St. Thomas adduces an argument that is primarily directed to the objective of showing that whatever exists in any way whatever exists by virtue of that being who is uniquely uncaused. The proof, briefly, is this:

> It is impossible for the same characteristic to be predicated of two entities in such a way that it is uncaused in both; rather one must be the cause of (its being in) the other (as fire is the cause of heat in a mixed body, though both are said to be hot) or else it must be due in each instance to a third entity which is the cause of this characteristic in both

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[97] *V.s.* pp. 273ff.

[98] Cf. *C. G.* I, 42. Here St. Thomas has gathered a number of arguments proving explicitly the uniqueness of the Divine Being and implicitly the participated being of all other things apart from Him.

> (as fire is the cause why two candles give forth light). Now existence is predicated of everything that is. It is impossible, therefore, for there to be two beings whose existence is uncaused. Rather the existence of both must be due to a (common) cause or else one is the cause of the other. (In the last analysis therefore) everything that exists in any way whatsoever must be from that being whose existence is uncaused."[99]

The force of this argument, of course, hinges on the assertion that there cannot be two uncaused existents. This in turn depends on the initial affirmation that it is imposible for the same characteristic to be predicated of two entities in such a way that it is uncaused in both. It is the proof of this latter statement (for St. Thomas did not merely assume it but prefaced his argument by proving it, knowing well that the rest depended upon it) which is of particular interest to us at this point, for in it is contained, at least by implication the proof that every existent save one is a participated and therefore a caused existent.

It is impossible, we are told for some one thing (*aliquod*) to belong to two (or more) entities and to both (or more than one) according to its essence [*secundum (ali) quod ipsum*]. In other words whatever is attributed to two beings (or more) can be predicated at most of only one by reason of its (i. e., the predicate's or attribute's) essence. To the other(s) it can be predicated or attributed only by participation, by a partial and not exhaustive possession (as e. g., participation in the genus by the species, or in the species by the individual). The reason for this lies in the truth that what is predicated of something by reason of what it (the predicate) is (essentially), does not exceed its subject, but is convertible with it. Thus, having three angles equal to two right angles does not exceed the nature of triangle of which it is predicated and is convertible with it. A. v., nowhere does one find a figure with three angles equal to two right angles which is not essentially a triangle and vice versa never can one find a triangle to which this property does not belong, *secundum quod ipsum.* If now, for example, an isosceles, an obtuse and a right triangle also have this property, it is not by reason of that determination which makes them isoscelar, obtuse or right, but by the fact that each of these is an inferior of, and therefore shares in the common genus triangularity of which the property (having three angles, etc.) is alone predicated *secundum quod ipsum.*[100]

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[99] *C. G.* II, 15, Omne enim: "Impossibile est . . . aliquod unum de duobus praedicari, ita quod de neutro per causam dicatur; sed oportet vel unum esse alterius causam, sicut ignis est causa caloris corpori mixto, quum tamen utrumque calidum dicatur: vel oportet quod aliquod tertium sit causa utrique, sicut duabus candelis ignis est causa lucendi. *Esse* autem dicitur de omni eo quod est. Impossibile est igitur esse aliqua duo, quorum neutrum habeat causam essendi, sed oportet utrumque acceptorum esse per causam, vel alterum alteri esse causam esendi. Oportet igitur quod ab illo cui nihil est causa essendi sit omne illud quod quocumque modo est.

The example drawn from mathematics which we have elaborated beyond the explicit words of St. Thomas may seem somewhat unsatisfactory because of the generally known fact that "mathematicalia" as such remain in the realm of the abstract, consider only formal causality and are completely untouched by efficient or final causality[101] whereas it was precisely this that St. Thomas sets out to prove, viz., that all things apart from God are *efficiently* caused by Him. Other applications, however, which consider the participation of the concrete and the individual in the species and which therefore are immediately connected with efficient causality may readily be made. E. g. the case of the human nature predicated of individuals. Though we say that Peter is a rational animal, John is a rational animal and both are *essentially* men, nevertheless "being a rational animal" is *essentially* neither Peter nor John since it is not predicated according to what "being a rational animal" is, (i. e. essentially), of either. It is not therefore, convertible with the individual subjects, but obviously is capable of exceeding them since being a rational animal may be found in countless other individuals. It is, however, predicated essentially of and is convertible only with the "natura secundum se", viz., "homo", abstracted from existence in this or that individual or even from its existence in the mind.[102] It is clear then that being a rational animal is proper only of "homo" as such, and of John, Peter et al., by participation in the nature of man.

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[100] Cf. *loc. cit.* Omne enim: "Impossibile est autem aliquod unum duobus convenire, et utrique secundum quod ipsum; quod enim de aliquo secundum quod ipsum dicitur, ipsum non excedit; sicut habere tres angulos duobus rectis aequales non excedit triangulum de quo praedicatur, sed est eidem convertibile. Si igitur aliquid duobus conveniat, non convenit utrique secundum quod ipsum est."

[101] Cf. *In III Met.* 4, n. 375-376 (Cath. Edn.)

It is so with existence (esse). Predicated of everything that is, it can be proper only to one *per essentiam,* viz., to that being in whom it is found in the unlimited manner that the perfection of its essence calls for. Now "esse" is a perfection which essentially bespeaks no imperfection, no limitation. If therefore it is found in any being essentially, it must be in a being that will not limit it (otherwise it would only be shared partially and not *secundum quod ipsum est*), in a being therefore that is pure act. The two, moreover, must be convertible, that is to say, where there is pure act, there is existence in all its unlimited and illimitable perfection and where existence is in this, its unlimited essence, there is pure act. Everything else of which existence is predicated, must be by participation. We need not labor the point that the being of whom existence is predicated "per essentiam" and "secundum quod ipsum est" is alone uncaused, whereas the beings of whom it is predicated not "secundum quod ipsum est" but "per participationem" must necessarily be caused. Sufficient has been said to bear out the point that there *can* and *must* be but one being who is existent by very essence and that all else must share existence. Hence, the evident practicability of the principle of causality, based on the note of participation.

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[102] The angelic Doctor recognized the falsehood of saying that "man as man has existence in this singular or that." Cf. *De Ente et Essentia* (Marietti Edn.) c. 4, n. 1: "falsum est dicere quod natura hominis, inquantum hujusmodi, habeat esse in hoc singuiarl: si enim esse in hoc singulari conveniret homini, inquantum est homo, non esset unquam extra hoc singulare; similiter, si conveniret homini, inquantum est homo non esse in singulari, nunquam esset in eo. Sed verum est dicere quod homo, inquantum est homo, non habet quod sit in hoc singulari vel in illo. Patet ergo quod natura hominis absolute considerata abstrahit a quolibet esse."

We have attempted in this chapter to arrive at the personal thought of St. Thomas relative to the principle of causality. It has been seen that among the various formulas, all of which possess a necessary character, one by preference and predilection stands out as the ultimate expression of this principle for the Doctor of the Schools—viz., whatever exists by participation is caused by another, and, ultimately, by the being who is such by very essence. It goes beyond that of Aristotle which, by reason of his broadened concept of causal action, Aquinas found somewhat defective and insufficient from the aspect of its ultimate and universal character. Other formulas have been weighed and found wanting on one score or other. Daringly taking over the platonic theory of participation, St. Thomas touched up with the note of efficiency its pure exemplarity and apparently found therein all that reason's exigencies demanded of a prime causal principle. The chapter has concluded with the practical note bearing on the comparative readiness with which it is possible to prove that all existents save one must necessarily be participated existents. We shall now turn to St. Thomas' views on causal necessity or the principle of uniform causation.

Chapter XIII

CAUSAL NECESSITY

(Principle of Uniform Causation)

Because of the marked similarity between the theory of Aristotle and St. Thomas relative to causal uniformity and necessity it will suffice at this point to give no more than cursory consideration to the latter's viewpoint, following the same general lines of the chapter in which the Philosopher's thought was recorded.[1]

With the same perspicuity of thought that characterized the Stagirite, St. Thomas clearly distinguished causal necessity from necessity of a cause, and, in consequence, the principle of uniform causation from that of efficient causality. Whereas the latter principle, as has been noted, concerned itself with the absolute requirement of an efficient cause for everything termed an effect (gathered from the recognition of the latter's insufficiency coupled with the understanding of the nature of causal action), the Angelic Doctor readily saw that the former principle regarded the mode of emanation of an effect from its natural cause (arrived at by scrutiny of the nature of such a cause).

I. Statement of the Principle

No doubt it was the same fact and the same psychological processes working upon this fact which enabled the Angelic Doctor to arrive at the notion of natural efficient causes and to reach the expression of the principle of uniform causation. In the harmony and uniformity of the sense phenomena that deployed itself before his mental gaze he was constrained to read therein the reign of law and order, of purposiveness, determinism and necessity. Again, like Aristotle, he recognized the presence of an imperative law of nature—the undeviating inclination in every natural cause to reach its proper end by determined modes of operation, and the actual realization of that goal under the proper circumstances (i. e., the presence of propitious or indispensable conditions). "It is a law of nature (natum est)", he notes, "for the same thing (cause), providing it remains unchanged and is at all times similarly disposed, to operate always in the same way and not contrariwise"[2] so that if, in the same things we find the same effects it is necessary to postulate the presence of the same causes.[3]

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[1] Cf. Chapt. VII, pp. 124-156.

II. *Scope of the Principle*

The principle, as with Aristotle, is obviously restricted to natural efficient causes, that is to say—employing provisionally an eliminative description—all proper efficient causes that are on the one hand, neither rational and voluntary, nor, on the other, accidental nor miraculous.

Strictly speaking, rational and voluntary causes as such satisfy perfectly the classic definition of *nature* as propounded by Aristotle and accepted by Aquinas: "nature is nothing else than a principle of motion and of rest of that thing in which it resides immediately and (this,) by reason of an essential attribute—not accidentally."[4] Nevertheless in viewing the manner in which these principles proceed to their actions, St. Thomas without fail distinguishes those which act with necessity and imposed determinism (when requisite conditions are present) from those which act freely and with self-determination. The former he designates as natural causes in the restricted sense (*causae per*

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[2] *In II De Gen. et Corr.*, 10, Vivès, XXIII, p. 377b: "Idem manens idem et semper similiter se habens, semper natum est facere idem et non contraria." Again, speaking of natural causes St. Thomas makes the assertion: "Semper . . . ab eodem principio proceditur in eumdem finem, nisi aliquid impediat" (*In II Phy.* 14, Vivès, XXII, p. 376b). See also *Comp. Theol.* I, 96: " . . . agens naturale eodem modo agit quamdiu eodem modo se habet, eo quod quale est, talia agit." Cf. *De Occult. Operib. Natur.*, Vivès, XXVII, p. 505b; *C. G.* II, 23, Omnis enim.

[3] *In II De Coel. et Mund.*, 24, Vivès, XXIII, p. 183b: " . . . in eisdem rebus quantum ad eosdem effectus necesse est ponere easdem causas."

[4] *In II Phy.* 1, Vivès, XXII, p. 340a: 'Natura nihil aliud est quam principium motus et quietis in eo in quo est primo et per se, et non secundum accidens." *S. T.* I, 29, 1, 4m: "(Natura est) . . . principium intrinsecum cujuscumque motus." Cf. *ibid.* III, 2, 1c, etc.

naturam), the latter, as voluntary free or rational causes (*causae per voluntatem*).

To avoid a possible misapprehension at this point, it is useful to serve warning to the effect that the distinction between *natural* and *voluntary* so understood is not perfectly paralleled by, nor identical with, the distinction respectively between *necessary* and *contingent* causes, found so frequently in St. Thomas' works. This latter distinction considers not so much the manner in which causes proceed to action and to their effects as the manner in which effects proceed from causes.[5] If effects proceed in such a way that they *cannot not be* (as St. Thomas, following Aristotle, conceived the motion of the heavenly bodies) then their causes obviously must act with unimpedable and inviolable necessity. If on the other hand effects do not necessarily result from the presence of their causes, a. v., if they are capable of being or not being, then they are contingent and their causes similarly are contingent. Now while it is true that all necessary causes so understood are natural whereas no rational or voluntary cause is thus necessitated, but is rather, contingent, nevertheless, not all natural causes are themselves necessitated in this manner but may be, like rational causes, contingent. The "ratio" of contingency is, however, different in the case of rational causes and natural causes. The former are contingent because the contingency of their effects is due to a perfection of their being. They may act in this way or that, produce this effect or that, or even none at all by reason of the fact that their active virtues are not anteriorly determined or limited to one but are endowed with freedom of specification, (power of acting in this way or that) and contradiction (power of acting or of not acting). Natural causes, however, are contingent because the contingency of their effects is due to an imperfection, a defect in their being. With virtues unchangeably determined to one mode of operation, they may yet fail to reach their effects by reason of a debility of active power or the violence or passive obstruction of another being, or finally, by reason of the indisposition of matter which successfully challenges their action.[6] Nevertheless this type of natural contingent causes is included in, and provided for, by the principle of uniform causation. Excluded, however, are all rational contingent causes.

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[5] Cf. *C. G.* I, 67, Item.

Placed outside the ambit of this principle, moreover, is all that may be grouped as "causae per accidens"—i. e., all that may happen (accidit) beyond the "intention" of a natural cause ("praeter id quod intendebatur ab aliqua causa per se determinata"),[7] a. v., casual or fortuitous occurrences. Their opposition to the natural is their departure from the norm, the realm of the normal. They are abnormal, unnecessitated, lacking natural predetermination (because, lacking essential unity and being, they are not naturally caused)[8] and, in regard to scientific knowledge within the grasp of man, they are indeterminable, incalculable and immanifest. Consequently they may never be reduced to a natural cause *per se* though they can be and are reducible to a mind preordaining.[9] The natural on the other hand is the normal, the virtually predetermined, the suppositionally necessitated (i. e., in the supposition of the requisite conditions for action) and, in regard to scientific knowledge, ascertainable and calculable within limits, as well as hypothetically extrapolable and predictable (i. e., in the hypothesis that the conditions are *known* and *known* to be unchanged).[10]

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[6] Cf. *C. G.* III, 72, Cujuslibet: "In rebus . . . inanimatis, causarum contingentia ex imperfectione et defectu est; secundum enim suam naturam sunt determinatae ad unum effectum, quem semper consequuntur, nisi sit impedimentum, vel ex debilitate virtutis, vel ex aliquo exteriori agente, vel ex materiae indispositione. . . . Quod autem voluntas sit causa contingens ex ipsius perfectione provenit, quia non habet virtutem limitatam ad unum, sed habet in potestate producere hunc effectum vel illum, propter quod est contingens ad utrumlibet."

[7] *In VII Met.* 6, n. 1382 (Cath. Edn.)

[8] *In I Periherm,* 14, Vivès, XXII, p. 48 a-b: " . . . illud quod est per accidens non habet causam, quia proprie non est ens, sed magis ordinatur cum non ente." *Ibid.* 49a: "virtus naturae se habet ad unum: quod autem est per accidens non est unum." Chance bespeaks an encounter, an intersection of two or more causal series not essentially preordained to each other, an accidental confluence or coincidence of many factors, which possesses unity only for a mind apprehending (*loc. cit.* 49a: "quod quamvis secundum se non est unum, tamen intellectus ut unum accipit, inquantum sc. componendo format enunciationem unam") and a mind preordaining (*loc. cit.* 49b: " . . . contingit id quod secundum se per accidens evenit, et casualiter, reduci in aliquem intellectum preordinantem.") Consequently while there may be, and indeed must be a *rational cause* responsible for the meeting of two or more causal chains, the meeting is casual and accidental as far as any one or even all the *natural causes involved,* are concerned, for none of these, as Maritain observes, "is predetermined to produce it" (that is, the meeting or encounter of the causes and what results therefrom) "and this multiplicity

The principle finally excludes the cause of the miraculous,[11]

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of causes explains the chance event only on the supposition" (not *naturally* preordained or predetermined) "that these chains meet at a particular point of intersection. . . . There is no agent whose *nature* is such that it must overflow in this particular effect and is foreordained to produce it." Cf. *Preface to Metaphysics,* p. 148. See also *S. T.* I, 115, 6c.

[9] *In I Periherm,* 14, 49a: "Id quod est per accidens, non potest reduci ut in causam per se in aliquam virtutem naturalem; quia virtus naturae se habet ad unum: quod autem est per accidens non est unum. . . . Concursus (of natural causes) cum sit per accidens non potest reduci in aliquam causam naturaliter agentem. . . . Sed . . . contingit id quod secundum se accidens evenit et casualiter, reduci in aliquem intellectum praeordinantem."

[10] St. Thomas mentions our foreknowledge and expectancy of events in this fashion: "Naturali cognitione aliqua futura praenoscimus per causas, quas praesentes vidimus ex quibus futuros expectamus effectus vel per certitudinem scientiae (absolutely necessary causes) vel per conjecturam (conditioned or contingent natural causes))." *De Pot.* 5, 6c. Cf. *In I Periherm.* I, 14, Vivès, XXII, p. 50a; *C. G.* I, 67, Amplius, Sicut. When we say that in reference to scientific knowledge natural happenings are "calculable within limits" we mean within the limits of our knowledge of the requisite conditions and when we say "hypothetically extrapolable and predictable" the same qualification holds true because, as we shall see, the regularity and uniformity of natural events depends not only upon the presence of natural causes which act with precision and necessity under requisite conditions but also the presence of the requisite conditions themselves. If one knows neither the natural cause nor the exact conditions for its operation it is obvious that calculation, prediction and extrapolation will be impossible. This would seem to be implied in St. Thomas' use of the phrase "per conjecturam".

[11] Miracles, according to St. Thomas, are "illa quae sola virtute divina

viz., the Godhead Itself. The character of such events is explicable only on the grounds of divine intervention for, evidently, they are beyond,[12] above[13] or contrary to[14] the order of nature and the accustomed course of natural phenomena.

III. Derivation of the Principle

1. The Fact of Uniformity, Order.

Leading to the elimination of these enumerated causes as well as to the formulation of the principle itself were the same facts and psychological processes which, as we have noted, affected St. Thomas' mind as they did Aristotle's own. The fact of uniformity in action, orderliness and recurrency was just as striking in the thirteenth century of the Christian era as in the fourth before Christ and the added fact that such regularity had been maintained over the centuries simply confirmed Aquinas' convictions about the principle. (We shall note, however, that the principle itself depends upon the observation of sustained uniformity only as to its psychological origin, not its epistemological evidence.) Uniformity reflected order and this in turn, ordination to an end. Finality for the Angelic Doctor as for the Stagirite is necessarily implied in the concept of order and ordination,[15] which is nothing else than the inclination of each being through its nature (i. e., its essence as principle of operation) towards something definite.[16] (These inclinations of beings, incidentally, towards ends which are convenient to their re-

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fiunt in rebus illis in quibus est naturalis ordo ad contrarium effectum vel ad contrarium modum faciendi", *De Pot.* 6, 2c.

[12] *S. T.* I, 104, 4c: "praeter ordinem naturalem creaturis inditum"

[13] *S. T.* III, 13, 2c: "supra consuetum ordinem et cursum naturae"

[14] *De Pot.* 6, 1c: "contra communem et solitum cursum naturae"

[15] Cf. R. Garrigou-Lagrange, *Le Réalisme du Principe de Finalité*, Paris, Desclée de Brouwer et Cie., 1932; Theodor Steinbuchel, *Der Zweckgedanke in der Philosophie der Thomas von Aquin, Beitr. z. Gesch. d. Phil. d. Mittelalt.*, vol. XI.

[16] Cf. *In III de Coel. et Mund.* 6, Vivès, vol. XXIII, p. 212b: "In rebus enim sensibilibus apparet quod ordo est propria natura eorum quia sc. per propriam naturam unumquodque eorum inclinatur ad aliquid certum: haec autem inclinatio est ordo qui attenditur in sensibilibus rebus . . . "

spective natures is what St. Thomas called natural or divine laws.[17])

2. Finality and Determinism

Now such inclinations (expressive of natural and rational appetites) are beyond understanding unless seen in connection with finality and this in turn is inconceivable apart from predetermination of action and efficiency. We may note, however, that the predetermination here considered is different from that mentioned in Chapter XI. There, reference was to a physical predetermination, of every creature-action (itself efficient), which is proper to the first efficient cause. Here however the determination is that of the final cause and the priority is that which every final cause has over every efficient cause in act, the intentional priority of determinate end to determined action, (efficiency proper).

Every agent, St. Thomas tells us, whether it be purely natural or rational acts for an end[18] and this end, moreover must be a determinate objective. As previously noted[19] it is finality which renders efficiency possible. Without it there would be no determination, no determined tendency, no inclination or proclivity of a being's nature (principle of action) to action, hence no action.

> "If an agent were not to press towards a determinate effect", St. Thomas affirms, "all effects would be indifferent to it. But what is indifferent to many things does not produce one of them more than another: hence from an agent which is open to both sides of an alternative *(a contingente ad utrumque)* no effect would follow unless *by some means it becomes determined to one above the rest*: otherwise it could not act at all."[20]

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[17] Cf. *In Lib. De Div. Nomin.* c. 10, lect. 1, Vivès, vol. XXIX, p. 550b: "Lex Dei est cuilibet creaturae infixa naturalis inclinatio ipsius ad agendum id quod convenit ei secundum naturam . . . (Ipsas) naturales inclinationes . . . dicimus esse naturales leges."

[18] Cf. *C. G.* III, 2; *S. T.* I-II, 1, 2c.

[19] *V. s.*, p. 195 ff.

[20] *C. G.* III, 2, Item: "Si agens non conderet ad aliquem effectum

In the words of Maritain: "Being as agent is reference to and determination to a particular good . . . And this reference is the very ground of the agent's operation, the reason why it is posited in existence."[21]

Now in some beings, this reference or determination is self-induced—that is to say, in rational beings the determination comes about, (at least at times and in certain respects)[22] through the rational appetite called the will. In all else, however, the determination comes about through a natural inclination called an "appetitus naturalis".[23] The former tend to the end or ends by moving themselves thereto, as is the case with man. The latter, however, as moved by another. The former move themselves determinately towards the particular ends which it is within their competence to freely set or predetermine for themselves[24] precisely because they have dominion over their acts through free choice which is a faculty of reason and will.[25] The latter

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determinatum, omnes effectus essent ei indifferentes. Quod autem indifferenter se habet ad multa non magis unum eorum operatur quam aliud; unde a contingente ad utrumque non sequitur aliquis effectus nisi per aliquid quod determinetur ad unum. Impossibile igitur esset quod ageret." Cf. *S. T.* I-II, 1, 2c.

[21] *Preface to Metaphysics,* p. 113.

[22] See below.

[23] *S. T.* I-II, 1, 2c: "Haec determinatio sicut in rationali natura per rationalem fit appetitum, qui dicitur voluntas; ita in aliis fit per inclinationem naturalem, quae dicitur appetitus naturalis." Cf. *In V Met.* 6, n. 829 (Cath. Edn.)

[24] Those viz., not directly apprehended as being necessarily connected with their supreme felicity, that general good which is appetible for itself and which cannot not be willed. Cf. *In I Periherm.* 14, Vivès, vol. XXII, p. 51a-b: " . . . est quoddam bonum quod est propter se appetibile, sicut felicitas, quae habet rationem ultimi finis; et hujusmodi bono ex necessitate inhaeret voluntas; naturali enim quadam necessitate omnes appetunt esse felices. Quaedam vere sunt bona, quae sunt appetibilia propter finem, quae comparantur ad finem sicut conclusiones ad principium . . . haec etiam essent ex necessitate appetibilia, et maxime apud eum qui talem ordinem percipiat; et forte talia sunt esse, vivere et intelligere, et si qua alia similia."

[25] *S. T.* I-II, 1, 2c: "Illa quae rationem habent, seipsa movent ad finem,

however, lacking reason tend to their respective ends on account of natural inclination, as moved by another, not by themselves, since they know not the "ratio" of the end.[26] This movement towards definite objectives on the part of natural beings takes on the character of a natural necessity, because, without any power of self-determination, they would be absolutely incapable of actual operation and of the attainment of any goal unless the inclinations and faculties of its being were pre-oriented and predetermined by and to the end.

3. Natural Causal Necessity

Here then is revealed the sharp cleavage between the rational and the natural cause. In the former, determination is rendered perfectly compatible with freedom and in fact is a result of it, since it is the prerogative of the free agent to determine itself. In natural causes, however, determination can only mean necessitation. The natural cause, if it is to act, if it is to reach its natural end, its ultimate actuality,[27] cannot be other than necessitated, cannot be otherwise than determined. Rather must it at all times exhibit the same unswerving tendency to the same goal under like conditions or circumstances. For the natural cause, St. Thomas observes, is that which is constantly (unchangeably) moved by some intrinsic principle until it comes to some end—not to any end it matters not what (non in quodcumque contingens), nor from any principle whatsoever to any end whatsoever, but from a determined principle to a determined end. Always the process is from the same principle to the same end and cannot be otherwise as far as the direction and goal

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quia habent dominium suorum actuum per liberum arbitrium, quod est facultas voluntatis et rationis." Cf. *S. T.* I, 83, 1, 3m.

[26] *Loc. cit.:* "illa vero quae ratione carent, tendunt in finem propter naturalem inclinationem, quasi ab alio mota, non autem a seipsis, cum non cognoscant rationem finis."

[27] It has been pointed out that each thing exists for its operation (cf. *supra,* p. 311; *S. T.* I, 103, 5c), and that if action were denied it it would be deprived of that which is its proximate natural end. Such would be the case, we now maintain, if its action were teleologically undetermined.

of natural inclinations and action is concerned, unless there be some impediment[28]—(in which case it is only the attainment of the goal and not the being's tendency which is affected.) As a matter of fact not only the end but also the means to the end must be predetermined, or pre-established for every natural agent by some superior ordaining intellect, as St. Thomas expressly states.[29]

This means that whereas in free beings an agent can do this or that, as a carpenter can turn his art to the making of a bench or a cabinet (freedom of specification) and again can either do something or, at will, cease from doing it in the course of its productive action (freedom of contradiction), a natural agent on the other hand is determined both as to what its natural virtue is capable of doing and to the action itself, once the circumstances are meet.[30] In other words, not only is the establishment of a particular end beyond the competency of a natural being, due to the already single-purposed direction of its nature and the pre-moulded character of its form and faculties, but also antecedent indifference before transit to action is unthinkable granting the presence of the required conditions for the attainment of its pre-established goal(s).

Obviously the natural cause must be possessed of non-rational potencies, the very concept of which contains a necessitation not found in rational potencies. Signalling his complete accord with Aristotle on the matter, St. Thomas affirms the following:

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[28] *In II Phy.* 14, Vivès, XXII, p. 376b: "Haec enim dicuntur esse secundum naturam quaecumque ab aliquo principio intrinseco moventur continue, quousque perveniant ad aliquem finem non in quodcumque contingens, neque a quocumque principio in quemcumque finem, sed a determinato principio in determinatum finem. Semper enim ab eodem principio proceditur in eumdem finem, nisi aliquid impediat."

[29] Cf. *S. T.* I, 19, 4c: "Necesse est ut agenti per naturam praedeterminetur finis et media necessaria ad finem ab aliquo superiori intellectu."

[30] Cf. *De Pot.* 3, 13c: "Inter voluntatem et naturam hoc interest, quod natura determinata est ad unum, quantum ad id quod virtute naturae producitur, et quantum ad hoc quod est producere vel non producere; voluntas vero quantum ad neutrum determinata invenitur. Potest tamen aliquis hoc vel illud per voluntatem facere, sicut artifex scamnum vel arcam, et iterum, facere ea et a faciendo cessare . . . "

> "Apropos irrational potencies, whenever a passive potency approaches an active (virtue or power) in that disposition in which the passive can suffer and the active, act, it is necessary that the one suffer and the other act, as when that which is combustible is applied to fire."[31]

There is no such necessity, however, in rational potencies, at least relative to anything short of the ultimate good (subjective and objective) and those goods recognized as being necessarily associated therewith.[32]

4. Natural Efficient Cause

It is not difficult to see from what has already been said that the natural efficient cause for St. Thomas, no less than for the Stagirite, signified the physical, necessary, non-free cause, possessed of irrational potencies which, determined by reason of their natural ends, always act with a fixity and invariability of operation under similar circumstances.[33] In connection with this conception of the natural cause it may not be amiss to discuss briefly a certain related expression which might readily be misunderstood if St. Thomas' use of it were not fully grasped. In the spirit of Aristotle, if not in the letter, he occasionally describes a cause as that "ad quam de necessitate sequitur aliud." [34] The first observation to be made is that the expression applies to all four causes and is not exclusively descriptive of efficient causes. It was prior to his discussion of the division of causes when St. Thomas first used it, i. e., when he was speaking of causes in general. Nevertheless, the characterization is particularly apposite in reference to efficient causes and, among them to natural moving causes. The second note of importance is that it cannot be understood without certain qualifications which, mutatis mutandis, may be applied to all causes.

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[31] *In IX Met.* 4, n. 1818 (Cath. Edn.): " . . . in potentiis irrationabilibus necesse est, quando passivum appropinquat activo, in illa dispositione qua passivum potest pati et activum potest agere, necesse est quod unum patiatur et alterum agat; ut patet quando combustibile applicatur igni." Cf. *De Pot.* 3, 13c.

[32] In these latter instances the will is not considered "ut voluntas" but rather "ut natura".

[33] *V. s.*, p. 135.

[34] *In V Met.* 1, n. 749 (Cath. Edn.): *ibid.* 6, n. 827; *In II Phy.* 10, Vivès, vol. XXII, p. 376b; *S. T.* I-II, 75, 1, ob. 2; *De Pot.* 10, 1, 8m; *De Malo* 3, 3, 3m.

St. Thomas unequivocally states that if this definition is to be universally verified it is necessary to be understood of a cause that is *sufficient, complete and unimpeded.*[35] The sufficiency evidently refers to the fact that the active cause must be in integral and full possession of the virtue required for the production of the determined effect. It is complete if, in addition, it is complemented by the final and material causes and if, especially, the subject of its natural action is present to it in that condition proximately disposed for the reception of its influence. Finally, absence of impediment (chiefly of a counteracting cause) is obviously an indispensable condition if the natural end is to be attained and if the effect is to follow of necessity.[36] A similar interpretation is to be placed upon the cognate expression: "Posita causa sufficienti, ponitur effectus".[37] Both of these expressions simply stress the note of necessitated action contained in the definition of a natural moving cause already offered.

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[35] Cf. *In II Sent.* 36, 1, 1, 2m: "Quod dicitur quod ad causam de necessitate sequitur effectus, intelligitur de causa completa et non impedita. *S. T.* I-II, 75, 1, 2m: "Si illa definitio causae (sc. causa est ad quam de necessitate sequitur aliud) universaliter debeat verificari, oportet ut intelligatur de causa sufficienti et non impedita."

[36] The effect would follow of necessity from a *free* or *voluntary* cause, if in addition to the stipulations already laid down, there were added the final self-determining act of the will following upon choice, since no such cause is complete without this act. Cf. *In II Sent.* 36, 1, 1, 2m: " . . . in moralibus multo minus oportet quod ex causa de necessitate effectus sequatur: quia in his nihil est causa completa, nisi adjuncto voluntatis actu, et subtracto omni impedimento." See also *In IX Met.* 4, n. 1820: " . . . omne potens secundum rationem, necesse est quod faciat quando desiderat illud cujus habet potentiam, et eo modo quo habet."

[37] *S. T.* I, 46, 1, 9m: *ibid.* 115, 6, 1m; *De Mal.* 1, 3, 8m; *C. G.* II, 35. See also *In VI Met.* 3, n. 1193 (Cath. Edn.): "Necesse est enim causa

5. Formulation of the Principle of Uniformity or of Conditioned Causal Necessity

From the definition of the natural moving cause and its counterpart in these alternative descriptions, it is not difficult to see how the Angelic Doctor, like Aristotle, had arrived at the expression of the principle of uniform causation, or more precisely (as we have had occasion to note),[38] the principle of conditional causal necessity. Similarity of effect follows inescapably from the repeated action of the same natural cause under the same conditions. The principle may thus be expressed. *The same natural, non-free cause—(such a cause, viz., as tends unvaryingly toward pre-established ends by reason of their predetermining character relative to efficiency, and by virtue of irrational active potencies)—always and necessarily produces the same effect under like circumstances.*[39] St. Thomas has not formulated this in so many words but it cannot but be gathered from the group of texts already cited.[40]

While we have expressed this principle in categorical form, it is readily resolvable into a hypothetical or conditional proposition, the condition obviously being contained in the phrase "under like circumstances." Its hypothetical expression would then be "if the circumstances or conditions remain the same" or else (drawing the whole subject into the protasis) "if the same natural cause acts under similar conditions it will always and inevitably produce the same effect." Like a leashed greyhound straining for the prey, awaiting only the removal of all halters and barriers to its fleet movement and determined action, the

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posita sequi effectum nisi sit impedimentum." Cf. *De Mal.* 6, 1, 15m; *C. G.* II, 32 Amplius.

[38] *V. s.*, p. 155.

[39] *V. s.*, p. 136

[40] *Supra*, p. 376 and n. 2.

natural agent needs only the presence of conditions propitious as well as indispensable for its action. As we have seen the preestablished end ineluctably, as it were, magnetizes the natural being, predetermines its form and faculties and, through these, its (mode of) operation. The result is that the natural end being such, the inclination and mode of operation must be such, and the natural being cannot but tend towards that end as long as it remains what it is.

We have had occasion before, however, in analyzing Aristotle's viewpoint to distinguish the tendency of a being's nature from the realization, actualization, touchdowning of that tendency.[41] It is so with St. Thomas. The tendency, he recognized, was always there, parcel of a being's essence. Experience however suffices to show that this tendency may at times be frustrated. The natural agent actually reaches its end(s), actually produces its effects(s) only if, as noted above, it is a sufficient, complete and unimpeded cause. In other words, if all the conditions intrinsic and extrinsic, requisite for its action are present, it cannot refrain from acting and attaining this predetermined and determining end. Moreover (and this is where the principle of uniformity or conditional causal necessity enters) *it must always do so if the conditions remain unchanged.* That is to say, the end will be attained at all times, the same effect will always be realized if circumstances are unaltered.

It should be obvious, however, to anyone of discernment that it is a question quite apart from a study of the necessity of the principle of uniformity or conditional causal necessity, to ascertain whether and with what necessity the *conditions* for natural action *must be realized.* Before proceeding further with the analysis and evaluation of the formula of conditional causal necessity, let us first dispose of this distinct though closely related question concerning the presence of conditions.

6. Necessity of Conditions

It is necessary to serve warning at this point that we are not here discussing the theoretical necessity of conditions for causal action. This is taken for granted. All would admit that if by condition one means a circumstance indispensable for the operation of a cause, then they are so necessary (by very definition) that without them the end would not be reached. What is our concern here, however, is the practical case dealing with an actual, existing, natural cause, pre-orientated to a determinate end. The question is raised. *Must* the conditions for its action be *actually* present? The question cannot be answered at length without becoming exceedingly repetitious. A sufficiently detailed answer has been given in Chapter VII of the first part.[42] St. Thomas' response in conformity with the Stagirite's own is compactly expressed in the *Contra Gentiles, book II, chapter* 30. There, in the course of considering the manner in which "absolute necessity" may be a term attributable to creatures, he treats of that necessity with which effects (that is to say, ends) follow from the action of natural causes, and he points out how causal action may very well depend upon conditions that need not always be present. Thus he says:

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[41] *V. s.,* p. 133, n. 24

> "The necessity in the effect or in the thing moved [43] which results from the efficient or moving cause, depends not only on the agent itself, but also on the condition of the thing which is moved or which receives the action of the agent. (It may be that) in this there is (either) no potentiality whatsoever to receive the effect of such an action (as in wool there is no potentiality to be made into a saw) or there is a potency (but it is) impeded either by contrary agents or else contrary dispositions or forms inherent in the movable object which offer an obstacle to the power of the agent in act. Thus iron is not liquified by something with weak thermal content."[44]

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[42] See pp. 140 ff.

[43] St. Thomas is evidently referring to the necessity with which the effect is actualized by the efficient cause.

[44] *Loc. cit.,* Tertio vero (med): "Necessitas autem quae est a causa agente vel movente in effectu vel moto, non tantum dependet a causa

And he adds elsewhere,

> "It may happen from the debility of (the active) virtue and from its hindrance that the natural thing does not always operate in the same way, but at times lacks that which is proper to it according to its nature with the result that natural effects (in these cases) are not produced of necessity."[45]

Other instances there are, however, where natural effects occur with *absolute necessity*—those instances viz., when the virtue of the agent is indefectible and when the dispositions in and surrounding the patient are unalterably propitious and continually amenable to the action of the moving cause. Such was the case, St. Thomas believed in union with Aristotle, in the movements of the heavenly bodies. The contrast between the latter so-called absolutely necessary natural effects and those that are contingent, is curtly set forth from the viewpoint of the absolute necessity or contingency of the dispositions in both agent and patient, in the following paragraph.

> "If the disposition in the agent and in the patient, which (if present) necessarily entrain the (production of) the effect, shall be absolutely necessary in both then there will be absolute necessity in the efficient cause, as (is verified) in those (causes) which act always and of necessity. If however it (i. e., the disposition in both agent and patient) shall not be absolutely necessary but (on the contrary) capable of being removed, then there will be no necessity on the part

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agente, sed etiam a conditione ipsius moti et recipientis actionem agentis, cui vel nullo modo inest potentia ad recipiendum talis actionis effectum, sicut lanae ut ex ea fiat prora, vel est potentia impedita per contraria agentia vel per contrarias dispositiones inhaerentes mobili aut formas, motore impedito, quo impeditur virtus agentis in agendo, sicut ferrum non liquifit a debili calido."

[45] *C. G.* III, 72, Item, Debilitatio: "Ex virtutis autem debilitate et ejus impedimento contingit quod res naturalis non semper eodem modo operatur, sed quandoque deficit ab eo quod competit sibi secundum suam naturam ut sic naturales effectus non ex necessitate proveniant." Cf. *ibid.* 73, Cujuslibet enim.

> of the efficient cause (to actually produce its effect) save in the supposition that those dispositions that are required for action in both (agent and patient), are present, as (is true) in those (causes) which at times are impeded in their operation by reason of a deficiency of virtue or the violence of something contrary to it, causes therefore which do not act always and with (absolute) necessity but rather, in the majority of instances."[46]

With characteristic clarity and conciseness then does St. Thomas hereby confirm in general the salient features of Aristotle's views relative to the condition of natural causal action and the necessity with which they must actually be realized *in rerum natura.* Natural things happen either always (because in some instances, he thought, the dispositions of agent and patient are present with exceptionless necessity) or with relatively infrequent deviation (inasmuch as the dispositions required for action, while present normally and for the most part, are nevertheless capable of being absent or deficient.)

It should be noted in passing that the conditions surrounding the activity of natural agents play as important a role in the continuance of the existing order of uniformity as the natural causes themselves. The actual maintenance of the natural order, the actual prevalence of uniformity, sustained and constant, supposes not only the existence of natural causes which act with necessity if conducive conditions are at hand, but also the actual presence and indeed the continued recurrence of the same favorable conditions. Concerning this fact two observations in keeping with thomistic thought seem in order. Both of these have already been made the matter of warning in the aristotelian section [47] but merit further repetition and emphasis.

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[46] *C. G.* II, 30, Ex praedictis: "Si . . . talis dispositio, secundum quam de necessitate sequitur effectus, fuerit necessaria et absolute in agente et patiente, erit necessitas absoluta in causa agente, sicut in his quae agunt ex necessitate et semper" (sicut est in motu caeli). "Si autem non fuerit absolute necessaria, sed possibilis removeri, non erit necessitas ex causa agente, nisi ex suppositione dispositionis utriusque debitae ad agendum; sicut in his quae impediuntur interdum in sua operatione vel propter defectum virtutis vel propter violentiam alicujus contrarii; unde non agunt semper et ex necessitate, sed ut in pluribus." By the word "dispositio" in reference to the agent, St. Thomas evidently means a sufficiency of active virtue. In reference to the patient, it means not merely its subjective condition which renders it apt for action, a. v. its proximate impressibility with respect to a new form, but also the absence of contrary inhering dispositions and forms and contrary extrinsic agents as well. See note 40.

In the first place, the principle of uniform causation or conditional causal necessity is not so essentially tied up with the fact of uniformity that a disturbance of the latter would imperil the truth of the former. As a matter of fact, while offering the only satisfactory explanation of the fact of natural uniformity (viz., the presence of natural causes teleologically determined, operating in circumstances conducive to their action) the principle contains at the same time the provisional explanation of any deviation from the normal. For in the latter case the presumption would be, not that natural causes do not operate uniformly, but rather that one or more of the indispensable conditions of their uniform action is not met with. Theoretically, it may be added, the principle would still obtain if a natural cause acted only once and were never again to be surrounded with the conditions required for its action (and that means for its repeated uniform action).

In the second place, there is not the same necessity for the conditions to remain unaltered as there is for the natural cause, once primed by these conditions, to act in the same determined mode and to produce the same effect, and to do this moreover as often as it shall be confronted with the same circumstances. On the face of things there would seem to be nothing in the nature of the conditions themselves which demands that they be present in these definite proportions at this particular time and place to allow for the action of this natural cause. And if, as actually happens, the conditions of natural causation are verified with almost invariable frequency it is necessary to attribute this not to anything pertaining to the nature (essence) of such conditions (though they themselves may be the effects of natural causes) but rather to the wise plan of God, who, in His providence has instituted such a premeditated order in the universe[48] that individual natures regularly reach the ends for which they were ordained. If, however, the conditions occasionally are wanting or if some untoward or unexpected event interrupts the normal order, again it is due to this same divine wisdom which, in the premeditated order has provided for contingency through the defectibility of conditions surrounding contingent causes. In any case exceptions do not occur with any disturbing frequency. On the contrary, *the conditions are present with a regularity that enables one to reach physical certitude and the presumption that the same order which has been observed in the past will contniue in the future is reasonably based upon man's knowledge of both the wisdom and immutability of God, who ordains all things suaviter et firmiter and without caprice.* As Tilmann Pesch has well observed:

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[47] Part I, c. VII, pp. 154-156.

> "For the philosophy of the past" (referring especially to the peripatetics of the Middle Ages and St. Thomas) "necessity was an orderly and indeed a purposively ordered necessity: an orderly necessity since it brought forth orderly effects, a purposively ordered necessity since it was not *a priori* and logical but rather the consequence of a willed end. And since this end, which is nothing other than the present world-order and its continuance has been willed by the Author of nature according to the norm of a perfect wisdom, the concrete essence of each natural thing as well as the entire natural world-order bears the imprint of a machine-like necessity indwelling in the world. In the divine immutability and in the wisdom of the world's Creator the Peripatetics of the Middle Ages recognized an affidavit sufficient to assure them that the efficiency of natural things would meet with no disturbing obstacles, under normal

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[48] Cf. *C. G.* III, 94, Primo, namque.

> conditions. If now, for extraordinary reasons and with the infrequency with which a human lawgiver makes use of (?) his right of pardon, the supreme Sovereign should indulge His prerogatives and permit certain exceptions to enter in, then His wisdom must see to it that no exceptions are made which by their character or frequency impair in an undue manner the order of the world and the reliability of its natural laws."[49]

It is obvious, however, that "de potentia absoluta", i. e., regarding His power alone apart from His wisdom, God could have instituted a different order without in any way violating the essences of those things which are conditions for natural action.

Granting, however, that the conditions for action are present in the required combination the case is different. So constituted, it is inconceivable that the natural cause should have any intrinsic power to arrest it own action, without ceasing to be a natural cause. On the contrary, there would appear to be an impulsion to action so natural that it cannot but flow from the essence itself of the natural cause, and so necessary that (supposing always the due conditions) it would be impossible (essentially contradictory) for it not to act in the same way and produce the same effect. In other words, it is a metaphysical absurdity for a non-intellectual agent to be indifferent to determinate operation and a determinate effect under auspicious circumstances. In this connection and to further reveal the distinction of the natural cause from the free voluntary cause, Harper has made the daring though perfectly defensible statement that "efficient causes whose operations are not rational are in such wise necessitated to their proper act, that *de potentia absoluta* their natural action cannot be arrested, if all the requisite conditions are normally present."[50]

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[49] Tilmann Pesch, S.J., *Die grossen Welträthsel,* Freiburg im Breisgau, Herder, 1883, vol. I, p. 272: "Der Philosophie der Vorzeit zufolge wäre . . . die Naturnothwendigkeit eine geodnete, und zwar eine angeordnete Nothwendigkeit: eine geodnete, weil sie geordnete Wirkungen hervorbringt, eine angeordnete, weil sie nicht *a priori* und logisch, sondern die Folge eines gewollten Zweckes ist. Und weil dieser Zweck, d.i. die gegenwärtige Weltordnung und ihr Fortbestand, vom Urheber der Natur nach der Norm einer vollkommemen Weisheit gewollt ist, so trägt das concrete Wesen der Naturdinge, sowie die ganze naturliche Weltordnung das Gepräge einer maschinenartigen, der Welt innewohnenden Nothwendigkeit. In der göttlichen Unveränderlichkeit und in der Weisheit des Welturhabers erblickten die Peripatetiker des Mittelalters die genügende Bürgschaft dafür, dass die Wirksamkeiten der Naturdinge unter normalen Verhältnissen keine störende Behinderung anträfen. Wenn sich auch der oberste Souverän des Rechtes, auf besondere aussernaturliche Gründe hin Ausnahmen eintreten zu lassen, ebenso wenig begeben wird, wie ein menschlicher Gesetzgeber aud das Begnadigungsrecht verzichtet (literally: "renounce"; the correct meaning, however, would seem to be "to make use of"), so muss doch seine Weisheit dafür sorgen, das nicht Ausnahmen eintreten, welche durch ihren Charakter oder ohre Menge der Welt ihre Ordnung und den Naturgesetzen ihre Zuverlässigkeit in ungebührlicher Weis beeinträchtigen würden."

On the one hand, rational causes placed in circumstances conducive to action and with all that is *physically necessary* to the actual causality of will at hand, may not act, due to some extrinsic authority of a moral or purely intellectual nature, which, while making no alteration, whatsoever, in the physical conditions requisite for action and while exercising no action in physical opposition to the effect, nevertheless, by counsel, admonition, interior illumination or some such thing, influences but by no means necessitates the will's decision to refrain from action. Or—to state the case even more forcefully—a free will action may be in progress. Here, in addition to being surrounded by all that is physically necessary (otherwise it would not have been able to act in the first place) there is the added factor of the will's self-determination (otherwise it would not now be in act). At such a time an external authority, again by counsel advise or some such moral or social influence may bring about a desition of the action in progress. Such an influence cannot be enumerated among the indispensable conditions for the sudden cessation of activity since it exercises no physical curb upon the free will nor does it necessitate the new choice of the will, and yet the action ceases. It is evident that there is no parity in the operation of natural causes to such a situation. The natural cause on the one hand, precisely because of what it is, a non-rational agent is entirely unreceptive of any moral or social influence. On the other hand, a physical agent could prevent it from acting and reaching its effect only by changing the requisite conditions for its action, which would be contrary to the supposition.[51] Rightly then does St. Thomas like Aristotle attribute the characteristically determined and unchanged mode of operation of natural causes, and as a consequence, their production of like effects under like conditions to their very *ratio* or essence.[52]

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[50] Thomas Harper, *Metaphysics of the Schools,* vol. III, p. 406.

In summation of this section, and by way of return to the analysis of the principle under discussion, it may be said that the conditions requisite for natural causation are present with a certain *physical necessity* whereas the uniformity of operation that follows upon the presence of the said conditions attaches in some way to the very definition and therefore to the *metaphysical essence of the natural cause.*

IV. Character of the Principle of Uniformity or Conditional Causal Necessity

We have attempted to reconstruct the psychological processes whereby St. Thomas arrived at the concept of the natural cause and the formulation of the principle of causal uniformity. We have further endeavored to point out the thomistic distinction between the necessity of causal conditions *in rerum natura* and the necessity of causal action under the required conditions. Having resolved the former into a physical, the latter into a metaphysical necessity, we are now in a position to make a few concluding remarks relative to the character of the principle. It follows as a corollary from what has gone before that universality and necessity are essential properties of the judgment bearing on conditional causal action of natural agents. For it is already clear beyond question that for St. Thomas as for Aristotle, all natural causes without exception manifest in common the same unchanging characteristics, the only acceptable reason for which is that it is necessarily grounded in the very essence of each nature. The existing law-bound natural order with its recurrent periodicity and uniformity, St. Thomas believed, was proximately explicable only on two counts: 1) the existence of natural, non-free causes whose very essences, possessed of irrational potencies were characterized by teleologically predetermined fixity of operation under operable conditions, and 2) the actual constancy and regularity of these same conditions. Now it is only with the first factor that the principle of uniform causation is immediately concerned, viz., with the uniformity of action of natural causes under operable conditions. Such uniformity must evidently pertain to the essence of the natural cause. If the essence of such a cause is that in which it is distinguished from all that is not natural, then this distinguishing mark must consist in the absence of indifference, in the unvarying and invariable determined mode of operation and (given the fact or even the supposition of the proper dispositions on the part of the agent and patient) in the necessitated production of like effects. It is this alone which sets it off from pure chance and from every rational cause.

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[51] Cf. Harper, *ibid.* pp. 406-407.

[52] *S. T.* I, 19, 4c: "(Est) ex ratione naturalis agentis . . . ut unum effectum producat: quia uno et eodem modo operatur nisi impediatur. Et hoc ideo, quia secundum quod est tale, agit: unde quamdiu est tale non facit nisi tale. Omne enim agens per naturam habet esse determinatum." Cf. *Comp. Theol.* I, 96.

It becomes clear that the production of like effects under similar circumstances so attaches to a natural cause that the proposition expressing this relation must be said to be a necessary judgment known *per se*. In other words by an examination of the terms one sees the immediacy and necessity of the connection of the subject and predicate. A cause whcih is necessitated to produce the same kind of an effect at all times (barring indispositions and impeding conditions) cannot but be a natural, non-free cause whose non-rational faculties are predetermined to a moulded mode of motion.

The present chapter has revealed the major tonal identity between the theme of Aristotle and Aquinas on the uniformity of causation. Sense experience manifesting a consistency and a regularity of phenomena had provided both with the basis for the intellectual insight into the reality of irrational or natural causes—causes whose ends are pre-established, whose modes of operation are predetermined, whose potencies cannot be indifferent in the face of operable conditions. It is not surprising then that each has accentuated, as flowing from the very essence of the natural cause its conditionally necessitated action—necessitated action which could not but have the same terminus, produce the same result under the same circumstances. The metaphysical basis then for the principle of conditional causal uniformity both have placed in the essence of the natural agent, immutably determined by its natural form, faculty or potency, to the same action and end under similar conditions. Clearly distinguishing between the principle itself and the maintenance of the existing order, each would attribute any disturbances or disruptions of the normal order not to the changed bent of the natural agent but to the absence or non-fulfilment of due conditions which renders impossible the normal actualization of that bent in action "ad extra".

It is evident, therefore, that the Angelic Doctor has taken over substantially unchanged the position of the Stagirite. One differentiation that might have been enlarged upon is the fact that where in Aristotle there appears to have been a certain hesitancy in attributing to the deity the ultimate pre-establishment of natural ends and the ultimate predetermination of natural potencies,[53] for St. Thomas there was no such uncertainty. To God is credited in the last analysis the establishment of determinate and determining ends and the corresponding creation of monotelic or single-purposed potencies.[54] To Him moreover, much more definitely than was the case with Aristotle,[55] is attributed the imposition of a premeditated order upon the world wherein natures normally find uninhibited expression of their pent up urges for the good of the whole in a rationally ordered hierarchy of natural causes.[56]

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[53] *V. s.*, p. 132, n. 23.

[54] *V. s.*, p. 381, n. 17, p. 384, n. 29.

[55] *Supra*, p. 155, n. 93.

[56] *Supra*, pp. 392 ff.

SUMMARY AND CONCLUSION

1. We have set forth separately and successively the respective theories of Aristotle and St. Thomas on efficient causality in itself and in the light of related causes and cardinal concepts. We have seen that Aristotle recognized more than any of his predecesors the paramount importance of causality relative to wisdom and true science. In doing so he keynoted an attitude with which St. Thomas was heartily to accord. Human knowledge for both consists in a search for ultimates in causes—a search that is in the highest degree intellectual.

2. In the sense in which, as A. E. Taylor remarks, "the most original of human minds may be said to 'borrow' the suggestions it needs as the pabulum for its own thinking",[1] Aristotle returned to his predecessors, examined and criticized their ideas on causality and therefrom cultured the first full-blown causal theory the ancient world had seen. In the same spirit did the Angelic Doctor return to the past. The first to attempt anything "like a critical and thoroughly historical appreciation of past philosophy in its entirety",[2] he subjected to the fire of his burning scrutiny and search for truth the thought of the ages, of Greek, Jewish, Arabian and Christian antiquity. That which seemed most able to withstand his annealing and dross-consuming flame was the thought of the Stagirite. In the matter of causality Aristotle's general etiology and frequently its detailed expression were sustained by the Saint through honest personal clear-headed thinking and became the spine of his metaphysical system after he had made what he felt were necessary changes and emendations.

3. If there was any confusion in Aristotle's mind in regard to the general concept of cause and the notions of principle

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[1] "St. Thomas as a Philosopher" in Collection of papers read at the celebrations of sixth centenary of the canonization of St. Thomas, Manchester, England, 1924, published under title, *St. Thomas Aquinas,* by Basil Blackwell, Oxford, 1925, pp. 40-41.

[2] *Ibid.* p. 44.

and privation St. Thomas was quick to dissipate it. The generic notion of cause, left strangely undefined by Aristotle was credited with the elements common to the four species of causes—positive influence and a corresponding dependence in being or becoming. To these St. Thomas added the note of real diversity as he distinguished principle and privation from cause and defined the latter as that particular species of principle which by positive influx contributes being to, or contributes to the being of, another distinct from itself and on which that other is dependent in the measure of that contribution. Insistence is laid by the Angelic Doctor on the fact that the priority required by the concept of cause is none other than priority of nature and is not necessarily as Aristotle believed a temporal priority. The doctrine of the four causes with their interrelations elaborated and carefully drawn by Aristotle has been taken over in its entirety by Aquinas with the added idea of exemplary cause found germinally therein. Increased light has been thrown by Thomas on the more involuted questions concerning the relations and distinctions between the causes. In his hands extended amplification and added clarification have been given particularly to the relations between final and efficient causes—precedence being given to the one in the intentional order, to the other in the executive order. Aristotle's definition of efficient cause is found to be wanting in universality and therefore in essential accuracy by reason of the fact that it extended to such causes only as supposed a subject of action and insisted as well upon the necessity of temporal priority for efficient causality. Of a cause that needed no subject on which to act he had no concept, due to his failure to arrive at the fact of creation. The idea of creation gave to St. Thomas a broadened sense of efficiency in the concept of productivity or action that could be non-successive and non-mutative, i.e., instantaneous, without motion and therefore, without need of temporal priority. Efficient causality thus became the production of the being or the contribution to the being or becoming, of something distinct by way of action (prescinding from motion, succession and temporal priority).

4. Substantial agreement is found between Aristotle and St.

Thomas in the designation of "action" or the actual exercise of an actual potency as the specifying "ratio" of efficient cause, in the emphasis upon faculty and form as proximate and remote principles of action respectively, in the theory of action, passion and motion, action and reaction and in the conditions required for causal action. Beyond these convergencies, however, we find in St. Thomas that there is a deeper plumbing of the widened concept of action and a clear demarcation of causal action from improper or formal action; that action may be truly causal even if its term is immanent in the agent; that the precise formality which constitutes action as the specificative of efficiency in act is the becoming (or production) of the effect viewed actively, i. e., as coming from a being and denominating it as cause in act; that action is a perfection of the agent itself even though it takes place in and is (efficiently) perfective of the subject acted upon; that action is indeed the final subjective perfection of the being and its active potency, superadding the perfection of being a cause to that of mere being in act; that there is a further enriching of the equation which obtains between being and action by reason of form, entelechy or act; that the metaphysical basis for the theory of reaction has been accentuated; that "actio in distans" is regarded as a metaphysical impossibility.

5. With their realistic view of the world, both Aristotle and St. Thomas agreed in affirming the existence of efficient causes and indeed a hierarchy of such causes mounting to the Deity itself. For Aristotle, however, the precise nature of the relations between the Deity and these other causes remained enveloped in a mist of obscurity which became the occasion for grave misunderstanding and error. Ignorance of creation, dogmatic affirmation of the eternity of the world, understatement of divine knowledge and efficiency, divine providence and premotion were all so many weaknesses in the aristotelian system. These left enigmatically expressed the great issues of the relation of secondary causes to the prime unmoved cause and seriously handicapped the aristotelian revival in the early middle ages. The Motekallemin, swinging excesswards from a system so apparently inimical to what they held most dear, denied cosmic eternity, affirmed,

on rationally unsubstantial grounds, creation and indeed unintermittent creation and so stressed divine providence and action as to make God the unique agent in the world and everything the necessitated result of His singular activity. St. Thomas' was the tremendous task of avoiding the errors of both extremes, of stressing the all-embracing providence, the all-permeative action and premotion of God and at the same time, of staunchly vindicating the proper and instrumental efficient causality of beings apart from Him. Creation, for the first time clearly abstracted from the dilemma of temporal beginning or eternity, was given sound rational basis and its divinely proprietary character established. Not only has condign honor been done to the divinity by thus demonstrating the fact and need of a creator and the incommunicability of creative power, but also by affirming as stoutly as Islam's religionaries the reaches of divine providence, the necessity and immediacy of divine motion and premotion. Beyond this, moreover, honor has been done to the divine goodness, wisdom and omnipotence by insisting on creature causality and by revealing the nobility and extent of creature-action. In thus steering a middle course without seeming sacrifice of principle or common sense realism, without detracting from divine prerogatives or denying conferred creature privileges, St. Thomas formed a balanced synthesis, truly his own, in which he has clarified and defended the explicit utterances of Aristotle, made good the shortcomings which have been noted, given expression to implications that had long remained inarticulate in his system and contributed distinctive innovations not known to the Stagirite.

6. Aristotle's expression of the principle of causality was naturally colored by his concept of efficient cause. And since the latter for him was limited to moving causes it is not surprising that the principle extended only to those effects which are produced by an efficient cause acting through motion. St. Thomas with his widened concept of causal action found that necessary though the aristotelian formula might be, eminently practical though it was in leading to the first unmoved mover, it was entirely inadequate as an ultimate formulation of the principle

of causality. But if the concept of being in motion constituted an unsatisfactory basis for the ultimate expression of the principle no less so are the concepts centering around temporal beginning and contingency (in the thomistic sense of the word). The former term labors under both a theoretic and a practical difficulty—theoretic, because though temporal commencement is for us the ordinary index of causality it is not a formal element of causal dependence—practical, because even granting that beginning in time were to characterize everything called an effect, a principle based on such a concept would be highly impractical since there would be no way of knowing that beings of whose beginning we have and can have no experimental certainty (their existence being already immemorial in the mind of man) ever actually began to be (and therefore) ever actually were caused. The concept of *contingency* in the thomistic sense is likewise inacceptable for the reason that there are beings which are not "contingent" but "necessary" and which have an efficient cause of their necessity. Contingency, therefore, does not exhaustively characterize all that may be said to be caused. The concept of composition, more specifically, the composition of essence and existence satisfies the exigencies of reason as far as universality and necessity are concerned, for herein is found a notion that is coterminus and therefore convertible with that of an effect. Every effect is and must be a composite (at least) of essence and existence and, vice versa, every composite of essence and existence is and must be an effect. The notion of composition, however, has its drawback because it is itself a derivation from another concept which appears to express more radically and therefore more ultimately the need of being caused—viz., that of participated existence.

In the formula based on this latter concept, we have every reason to believe we have arrived at that proposition which for St. Thomas represents the full adequate and ultimate expression of the principle of causality. It possesses a necessary character in common with and in the same manner as the other expressions that have been noted; for being caused belongs to and is predicated of the being that shares existence (just as it is predicated of the being in motion, the being which begins to be, the being which is contingent or that which is composite) by reason of the second type of necessary predication, that is to say, as a necessary property. It, likewise, possesses universal character in common with the composite of essence and existence, since it is coterminous and convertible with everything that may be said to be an effect or a term of causal action. It stands, however, unique in its ultimate character. No other concept goes more directly to the root reason of causal dependence than that which finds expression in participated existence. And all others, (at least in what pertains to their radical insufficiency and consequent need of being caused), are, in the final analysis, reducible to it. In this ultimate expression of the principle of causality, St. Thomas has definitely departed from Aristotle. Touching up the platonic theory of participation with the note of efficiency, it seems he has found, therein, all that might reasonably be expected of a prime causal principle.

7. In the question of causal uniformity and necessity perfect unison is struck by Aristotle and Aquinas. The Angelic Doctor has adopted substantially unchanged the position of the Stagirite. Uniformity, order, purposiveness and determination have led them both to postulate the existence of conditionally necessitated causes—i. e., natural non-free causes which, possessed of irrational potencies are teleologically predetermined under proper conditions to act, and indeed, under repeated and unchanged conditions, to act in the same way and produce the same effect. The principle of conditional causal necessity or natural uniformity simply gives logical expression to what follows from the essence of the natural cause.

Our aristotelian and thomistic study is at an end. In parallel fashion we have offered the views of both philosophers relative to efficient causality in itself and in some of its more important aspects and applications. We have seen that between the two there is basically a great similarity. St. Thomas' relation to and reliance upon Aristotle is evident. This much, however, is clear, that in their many points of convergence, the Angelic Doctor was no servile follower of the Stagirite, no mere faithful exegete. His agreement was the result of a careful sifting for truth rather than a slavish adherence to authority. His many divergencies from Aristotle lend support to this fact. We have seen that he has frequently amplified and clarified some of the more cryptic utterances of the Philosopher, that he has made definite emendations, extended applications and not a few innovations in the latter's thought. It is this doctrine of Aristotle, modified, emended and renovated by St. Thomas and blended harmoniously into his ideological system that we offer for reexamination to the thinkers of our day, confident that, as part of the timelessly true philosophy of the ages, it contains the solution to the partly new but ever old questions that perplex the modern mind. If this re-examination is made, our act of mnemonic devotion to two great philosophers whose thought we are convinced remains in the main so vital and truly timely in our day shall not have been in vain.

L. D. S.

BIBLIOGRAPHY

Primary Sources

Aquinas, St. Thomas, *Opera Omnia,* Vivès ed., 34 vol., Paris, 1872-1880.

——— *Summa Theologica,* 6 vol., Tourin: Marietti, 1932.

——— *Summa Theologica, Commentarium Cajetani,* Leonine ed., vols. IV-XII, Rome: 1888-1906.

——— *Summa Theologica,* English Dominican trans., London: Burns, Oates & Washbourne, 1923-1929.

——— *Summa Contra Gentiles,* Tourin: Marietti, 1937.

——— *Summa Contra Gentiles,* English Dominican trans., 4 vol., London: Burns, Oates & Washbourne, 1923-1929.

——— *Commentarium in Perihermenias,* Vivès ed., vol. 22; Leonine ed., vol. I.

——— *Commentarium in Libros Posteriorum Analyticorum* (I, II). Vivès ed., vol. 22; Leonine ed., vol. I.

——— *Commentarium in VIII Libros Physicorum,* Vivès ed., vol. 22; Leonine ed., vol. II.

——— *Commentarium in IV Libros De Coelo et Mundo,* Vivès ed., vol. 23.

——— *Commentarium in II Libros De Generatione et Corruptione,* Vivès ed., vol. 23.

——— *Commentarium in XII Libros Metaphysicorum,* Vivès ed., vols. 24, 25.

——— *Commentarium in Metaphysicam Aristotelis,* Cathala ed., Tourin: Marietti, 1935.

——— *Commentarium in Aristotelis Librum De Anima,* Pirotta ed., Tourin: Marietti, 1936.

——— *Scriptum super Libros Sententiarum,* Mandonnet ed. (I-II), Paris: Lethielleux, 1929.

——— *Scriptum super Sententiis,* vol. III, Moos ed., Paris: Lethielleux, 1933.

——— *Commentum in IV Librum Sententiarum,* Parma: 1858.

——— *Commentum in Librum De Causis,* Vivès ed., vol. 26.

——— *Expositio in Librum Boetii De Hebdomadibus,* Vivès ed., vol. 28.

——— *Expositio in Librum Boetii De Trinitate,* Vivès ed., vol. 28.

——— *Commentaria in Librum B. Dionysii De Divinis Nominibus,* Vivès ed., vol. 29.

——— *Quaestiones Disputatae,* 4 vol., Tourin: Marietti, 1931; Vivès ed., vol. 14, 15.
Vol. I: *De Potentia;* vol. II, *De Malo, De Spiritualibus Creaturis, De Anima;* vol. III, IV, *De Veritate.*

——— *Quaestiones Quodlibetales,* Taurini: Marietti, 1931; Vivès ed., vol. 15.

——— *Opuscula,* Vivès ed., vols. 27-29.
Compendium Theologiae, De Rationibus Fidei, De Substantiis Separatis (De Angelorum Natura), De Aeternitate Mundi, De Principiis Naturae, De Occultis Operibus Naturae, Contra Errores Graecorum. Cf. *Opuscula Omnia,* Mandonnet ed., Paris: Lethielleux, 1927, 5 vol.

——— *De Ente et Essentia,* Taurini: Marietti, 1932.
On Being and Essence (De Ente et Essentia), trans. Clare C. Riedl, Toronto: St. Michael's College, 1937.

——— *Catena Aurea in Quattuor Evangelia,* 9. ed., 2 vols., Taurini: Marietti, 1938; Vivès ed., vol. 16-17.
In S. Pauli Epistolas, 7. ed., 2 vol., Taurini: Marietti, 1929.

Aristotle, *Opera,* Academia Regia Borussica ed., Im. Bekker recens., 5 vol., Berlin: G. Reimer, 1831-1870.
Vols. I, II: *Opera Graece;* vol. III: *Opera Latine Interpretibus Variis;* vol. IV: *Scholia Brandis;* vol. V: *Index Aristotelicus* H. Bonitz.

——— *Aristotelis Opera Omnia,** Graece et Latine, 5 vol., Parisiis: Firmin-Didot et Sociis, 1848-1873.

——— *The Works of Aristotle,* W. D. Ross ed., 11 vol., Oxford University: Clarendon Press, 1910-1930.
Vol. I: *Categoriae, De Interpretatione (Peri Hermenias), Analytica Priora et Posteriora, Topica;* vol. II: *Physica, De Coelo, De Generatione et Corruptione;* vol. III: *De Mundo, De Anima, Parva Naturalia;* vol. IV: *Historia Animalium;* vol. V: *De Partibus Animalium, De Motu et Incessu Animalium, De Generatione Animalium;* vol. VIII: *Metaphysica;* vol. IX: *Ethica Nichomachea et Eudemia.*

——— *Physique,* texte établi et traduit par Henri Carteron, Paris: Societè d'Editions "Les Belles Lettres", 1926.

——— *Physique d'Aristote,* J. Bartholemy St-Hilaire ed., Paris: A. Durand, 1862.

——— *The Metaphysics of Aristotle,* trans. J. H. McMahon, London: George Bell and Sons, 1884.

General Works

Alamannus, Cosmus, *Summa Philosophiae,* Paris: Lethielleux, 1885.

Antweiler, Anton, *Der Begriff der Wissenschaft bei Aristoteles,* Bonn: Peter Hansten, 1939.

Archer-Hind, R. D., *The Timaeus of Plato,* London: McMillan and Co., 1888.

Arnou, Renatus, S.J., *De Quinque Viis S. Thomae ad demonstrandam*

Dei Existentiam, Pontifica Univer. Gregoriana, Textus et Documenta, Series Philosophica, n. 4, Romae: 1933.

Augustine, Saint, *The City of God,* trans. Marcus Dods, 2 vol., Edinburgh: T. & T. Clark, 1872.

Avencibrol, *Avencibrolis (Ibn Gebirol) Fons Vitae ex Arabico in Latinum translatus ab Iohanne Hispano et Dominico Gundissalino,* Cl. Baeumker ed., in Beiträge zur Geschichte der Philosophie des Mittelalters, vol. I, Münster: Aschendorffianis, 1892-1895.

Baeumker, Clemens, *Das Problem der Materie in der Griechischen Philosophie,* Münster: Aschendorffschen, 1890.

Balmes, James, *Fundamental Philosophy,* trans. H. F. Brownson, M.A., New York: P. J. Kennedy, 1903.

Bandas, Rudolph G., *Contemporary Philosophy and Thomistic Principles,* Milwaukee: Bruce Publishing Co., 1932.

Baudry, J., *Le Probleme de l'origine et de l'eternité du monde dans le philosophie grecque de Platon à l'ère chrétienne,* Paris: Les Belles Lettres, 1931.

Benn, Alfred W., *The Greek Philosophy,* London: Smith, Elder & Co., 1914.

Billuart, F. C. R., *Summa Sancti Thomae,* Paris: Letouzey.

Bonitz, Hermannus, *Aristotelis Metaphysica,* vol. II: *Commentarium,* Bonn: Marcus, 1849.

Brehier, Emile, *Histoire de la Philosophie,* vol. I: *L'Antiquité et le Moyen Âge,* Paris: Felix Alcan, 1926.

Brentano, Franz., *"Aristoteles",* in *Grosse Denker,* vol. I, ed. Ernest von Aster, Leipzig: Quelle & Meyer, 1923.

——— *Aristoteles und seine Weltanschauung,* Leipzig: Von Quelle und Meyer, 1911.

——— *Aristoteles Lehre vom Ursprung des Menschlichen Geistes,* Leipzig: Veit & Co., 1911.

Burnet, John, *Early Greek Philosophy,* London: Adam & Charles Black, 1908.

Cajetan, Thomas de Vio, *Commentaria in "de ente et essentia" D. Thomae Aquinatis,* Laurent ed., Taurini: Marietti, 1934.

——— *Commentaria in "Summam Theologicam" S. Thomae Aquinatis,* Leonine ed., Rome: 1888-1906.

Causality, University of California Publication in Philosophy, vol. XV, Berkeley, Calif.: University of California Press, 1932.

Cherniss, Harold Frederick, *Aristotle's Criticism of Pre-Socratic Philosophy,* Baltimore: Johns Hopkins Press, 1935.

Chevalier, Jacques, *La Notion du Nécessaire chez Aristote et chez ses Prédécesseurs,* Paris: Felix Alcan, 1915.

Chollet, A., "Cause", *Dictionnaire de Théologie Catholique,* vol. II, ed. Vacant, Mangenot et Amann, Paris: Letouzey Ané, 1936.

Cioffari, Vincent, *Fortune and Fate from Democritus to St. Thomas Aquinas,* New York: Columbia University Dissertation, 1935.

Coffey, P., *Ontology,* New York: Peter Smith, 1938.

——— *The Science of Logic,* 2 vols., New York: Peter Smith, 1938.

Conimbricense Collegium, *Commentaria super Octo Libros Physicorum Aristotelis,* Venice, 1616.

Conti, Augusto, *Histoire de Philosophie,* trans. from Italian by Leon Collass, Paris.

Cornford, F. M., *From Religion to Philosophy,* London: Edward Arnold, 1912.

De Cortes, Marcel, *Aristote et Plotin,* Paris: Desclée, 1935.

De Regnon, Théodore, *La Métaphysique des Causes d'après S. Thomas et Albert le Grand,* 2ème. ed., Paris: Victor Retau, 1906.

De Vorges, Domet, *Cause Efficiente et Cause Finale,* Paris: Bureaux des Annales de Phil. Chrétienne, 1888.

Diels, Hermann, *Die Fragmente der Vorsokratiker,* 3 vols., Berlin: Weidmannsche Buckhandlung, 1932.

——— *Doxographie Graeci,* Berlin: Walter de Grytes et Soc., 2. ed., 1929.

Duhem, Pierre, *Le Système du Monde,* vols. 1, 2, 5, Paris: A. Hermann et Fils, 1913-1917.

Dummermuth, O.P., F.A.M., *S. Thomas et Doctrina Praemotionis Physicae,* Paris: Ephemerides "L'Année Dominicaine, 1886.

Erdmann, Johann E., *History of Philosophy,* trans. Williston S. Hough, London: Swan Sonnenschein & Co., 1893.

——— *Grundriss der Geschichte der Philosophie,* Berlin: Wm. Hertz, 1878.

Esser, Gerard, S.V.D., *Cosmologia,* Techny, Illinois: House of the Missions of St. Mary, 1939.

Farges, Albert, *Theorie Fondementale de l'Acte et de la Puissance du Moteur et du Mobile,* 2. ed., Paris: Letouzey et Ane, 1891.

Fatta, Michael, *Lineamenti di Metafisica Generale,* Milan: Vita e Pensiero, 1928.

Fratres Ordinis Praedicatorum, *Commentaria in Octo Libros Physicorum Aristotelis,* Editio Leonina, S, Thomae Omnia Opera, vol. II, Rome: Typographia Polyglotta, 1884.

Froschammer, J., *Die Philosophie des Thomas von Aquino,* Leipzig: Brockhaus 1889.

Fuetscher, L., S.J., *Die ersten Seins- und Denkprinzipien,* Innsbruck, 1930.

Garrigou-Lagrange, P. Rég., *Le Réalisme du Principe de Finalité,* Paris: Desclée de Brouwer et Cie., 1932.

——— *God, His Existence and Attributes,* tr. Dom Bede Rose, O.S.B.,, 2 vol., London: B. Herder Book Co., 1934.

——— *Providence,* tr. Dom Bede Rose, O.S.B., Herder: St. Louis, 1937.

——— *De Deo Uno, Commentarium in Iam. Partem S. Thomae,* Bibliothéque de la Revue Thomiste, Desclée de Brower et Cie, Paris, 1938.

Gierens, M., *Controversia de Aeternitate Mundi,* Pontificia Universitas Gregoriana, Textus et Documenta; Series Philosophica, n. 68, Rome, 1933.

Gilson, Etienne, *The Philosophy of St. Thomas Aquinas,* tr. Edward Bullough & G. A. Elrington, St. Louis: Herder Book Co., 1937.

——— *The Spirit of Mediaeval Philosophy,* tr. A. H. C. Downes, Charles Scribner's Sons, New York, 1936.

Gomperz, Theodor, *Greek Thinkers,* tr. G. Berry, London: John Murray, 1912.

Gredt, Joseph, *Elementa Philosophiae Aristetelico-Thomisticae,* II vol., Friburg Brisgoviae: Herder & Co., 1937.

Grote, George, *Aristotle,* II vol., London: John Murray, 1872.

Hamelin, O., *Le Système d' Aristote,* Paris: Felix Alcan, 1920.

Joseph, H. W. B., *An Introduction to Logic,* Oxford: Clarendon Press, 1931.

Hammond, William A., *Aristotle's Psychology,* (*De Anima* et *Parva Naturalia*), London: Sonnenschein & Co., 1902.

Harper, Thomas, S.J., *The Metaphysics of the Schools,* 3 vol., London: McMillan & Co., 1879.

Hawkins, D. J. B., *Causality and Implication,* New York: Sheed & Ward, 1937.

Heuser, Adolph, *Neuscholastiche Begründungsversuche für das Kausalprinzip,* Bonn: H. Pöppinghaus, 1930.

Huber, Sebastian, *Grundzüge der Logik und Noëtik im Geiste des hl. Thomas von Aquin,* Padeborn: Ferdinand Schöningh.

Jaeger, Werner W., *Aristotle: Fundamentals of the History of his Development,* tr. Richard Robinson, Oxford: Clarendon Press, 1934.

——— *Studien zur Entstehungsgeschichte der Metaphysik des Aristoteles,* Berlin: Weidmannsche, 1912.

Janet, P., *Les Causes Finales,* Paris: Librairie Germer Baillière et Cie, 1876.

Jastrow, Joseph, *The Story of Human Error,* New York: D. Appelton-Century Co., 1936.

John of St. Thomas, *Cursus Philosophicus Thomisticus,* t. II, *Philosophia Naturalis,* Paris: Vivès, 1883.

Jolivet, Régis, *Essai sur les rapports entre la pensée grecque et la pensée chrétienne,* Paris: J. Vrin, 1931.

Jourdain, Amable, *Recherches Critiques sur l'Âge et l'Origine des Traductions Latines d'Aristote,* reedited and augmented by C. Jourdain, Paris: Joubert, Libraire-Editeur, 1843.

Jourdain, Charles, *La Philosophie de Saint Thomas d'Aquin,* II vol., Paris: Hachette et Cie, 1858.

Kafka, Gustaf, *Aristoteles,* Munich: Ernest Reinhardt, 1922.

Koenig, Edmund, *Die Entwicklung des Causalproblems von Cartesius bis Kant,* 2 vol., Leipsig: Otto Wigand, 1888.

Lang, Albert, *Das Kausalproblem,* 2 vol., Köln: J. P. Bachem, 1904.

——— *Aphoristiche Betrachtungen über das Kausalproblem,* Köln: J. P. Bachem, 1909.

Liberatore, Matthieu, *Institutiones Philosophicae,* 3. ed., 2 vol., Rome: Civiltà Cattolica, 1864.

Mandonnet, Pierre, O.P., *Siger de Brabant et l'Averroisme Latin,* II ed., Louvain: Institut Superieur de Philosophie, 1911.

Manser, P. G. M., *Das Wesen des Thomismus,* Freiburg (S.): F. Rütschi, 1935.

Mansion, Auguste, *Introduction à la Physique Aristotelicienne,* Louvain. Institut Supérieur de Philosophie, 1913.

Maritain, Jacques, *Introduction to the Study of Philosophy,* trans. E. I. Watkin, New York: Sheed and Ward, 1933.

——— *A Preface to Metaphysics,* New York: Sheed and Ward, 1939.

Marling, Joseph M., C.PP.S., S.T.L., Ph.D., *The Order of Nature,* Catholic University of American Philosophical Dissertation, Washington, D C.: The Catholic University Press, 1934.

Maurice-Denis, Noële, *L'Être en Puissance d'après Aristote et St. Thomas d'Aquin,* Paris: Marcel Rivière, 1922.

Maurus, Sylvester, S. J., *Quaestiones Philosophicae,* vol. II, Cenomani: Leguicheux-Gallienne.

McAllister, J. B., *The Letter of St. Thomas Aquinas "De Occultis Operibus Naturae ad Quemdam Militem Ultramontanum,"* Washington, D. C.: Catholic University Press, 1939.

Mercier, D., *A Manual of Modern Scholastic Philosophy,* vol. I trans. T. L. Parker and S. A. Parker, St. Louis: Herder, 1932.

——— *Métaphysique Générale,* 5. ed., Paris: Felix Alcan, 1910.

——— *Critèriologie Générale,* 5. ed., Paris: Felix Alcan, 1906.

Meyer, Hans, *Thomas von Aquin,* Bonn: Peter Hanstein Verlagsbuchhandlung, 1938.

Michelitch, Anton, *Geschichte der Philosophie,* Graz: Styria, 1933.

Mugnier, René, *La Théorie du Premier Moteur,* Paris: Vrin, 1930.

Munk, Solomon, *Le Guide des Égarés,* French translation of Maimonides' *More Nebukhim,* 3 vols., Pars: A. Franck, 1856, 1861, 1866.

——— *Mélanges de Philosophie Juive et Arabe,* Paris: A. Franck, 1859.

Nys, D., *Cosmologie, Cours de Philosophie,* vol., VII, 2. ed., Louvain: Institut Supérieur de Philosophie, 1906.

O'Brien, Sr. Mary Consilia, O.P., *The Antecedents of Being,* Washington, D. C.: The Catholic University Press, 1939.

O'Neill, Rev. John, *Cosmology,* London: Longmans Green & Co., 1923.

Pastore, Annibale, *Il Problema della Causalità,* 2 vols., Torino: Fratelli Bocca, 1921.

Patterson, Robert Leet, *The Conception of God in the Philosophy of Aquinas,* London: Allen & Unwin, 1933.

Pegis, Anton C., *St. Thomas and the Greeks,* Milwaukee: Milwaukee University Press, 1939.

Pègues, Rev. R. P., O.P., *Commentaire Français Littéral de la Somme Théologique du Saint Thomas d'Aquin,* vols, I, II, V, Toulouse: Privat, 1923-1925.

Pesch, Tilman, S. J., *Institutiones Philosophiae Naturalis,* Friburgi Brisgoviae: Herder, 1880.

——— *Die grossen Welträthsel,* 2 vols., Freiburg im Brisgau: Herder, 1883.

Phillips, R. D., *Modern Thomastic Philosophy,* II vols., London: Burns Oates & Washbourne, Ltd., 1934.

Piat, Clodius, *Aristote,* Paris: Felix Alcan, 1903.

Picavet, Francois, *Esquisse d'une Histoire Générale et Comparée des Philosophies Médiévales,* Paris: Felix Alcan, 1907.

Plato, *The Dialogues of Plato,* trans. Benjamin Jowett, M.A., 2 vols., New York: Random House, 1937.

Rashdall, Hastings, *The Universities of Europe in the Middle Ages,* vol. I, ed. F. M. Powicke and A. B. Emden, Oxford: Clarendon Press, 1936.

Ravaisson-Mollien, Felix, *Essai sur la Métaphysique d'Aristote,* vol. I, Paris: J. Vrin, 1837; vol. II, Paris: Librairie de Joubert, 1846.

Remer, Vincentio, S.J., *Theologia Naturalis,* Rome: Aedes Universitatis Gregorianae, 1931.

Ritter, H. & Preller, L., *Historia Philosophiae Graecae,* ed. 10a., Gotha: Klotz, 1934.

Robin, Leon, *La Pensée Grecque,* Paris: La Renaissance du Livre, 1928.

——— *Platon,* Paris: Felix Alcan, 1935.

Roland-Gosselin, M. D., *Aristote,* Paris: E. Flammarion, 1928.

——— *Le "de ente et essentia" de S. Thomas d'Aquin,* Texte établi d'après les manuscrits parisiens. Introduction, notes et ètudes historiques. Kain (Belgique), Le Saulchoir, 1926, in Bibliothèque Thomiste, vol. VIII.

Rolbiecki, John J., *The Prospects of Philosophy,* New York: Benziger Brothers, Inc., 1939.

Rolfes, Eugen, *Die Philosophie des Aristoteles,* Leipzig: Felix Meiner, 1923.

Ross, W. D., *Aristotle's Physics,* Oxford: Clarendon Press, 1936.

——— *Aristotle,* 3. ed., London, 1938.

Rougier, L., *La Scholastique et le Thomisme,* Paris: Gauthier-Villars, 1925.

Rousselot, M. Xavier, *Études sur la Philosophie dans le Moyen-Âge,* 2ème. Partie, Paris: Joubert, 1841.

St. Thomas Aquinas, Papers read at the celebration of the sixth centenary of the canonization of St. Thomas Aquinas, held at Manchester, 1924, by A. Whitacre, O.P., V. McNabb, O.P., A. E. Taylor, Msgr. Gonne, T. F. Tout, Hugh Pope, O.P., Oxford: Basil Blackwell, 1925.

Schulemann, Dr. Phil. Günther, *Das Kausalprinzip in der Philosophie des hl. Thomas von Aquino,* Beiträge zur Geschichte der Philosophie des Mittelalters, XIII Band, 5. Heft (1915), pp. 1-112.

Schwegler, Albert, *A History of Philosophy,* trans. Julius H. Seelye, New York: Appleton & Co., 1880.

Sertillanges, A. D., *Saint Thomas d'Aquin,* 2 vols., Paris: Felix Alcan, 1912.

Sextus Empericus, *Hypotyposes Pyrrhonenses,* London: Loeb Classical Library edn., 1933.

Siebeck, Herman, *Aristoteles,* Stuttgart: Fr. Frohmann's, 1899.

Skibniewski, Stephan Leo von, *Kausalität,* Paderborn: Ferdinand Schöning, 1930.

Sparks, T. M., *De Divisione Causae Exemplaris apud S. Thomam,* Somerset, Ohio: Rosemary Press, 1936.

Stöckl, Albert, *Handbook of History of Philosophy,* Part II, *Scholastic Philosophy,* trans. T. A. Finley, S.J., Dublin: Fallon & Co., Ltd., 1903.

——— *Geschichte der Philosophie des Mittelalters,* 3 vols., Mainz: Kirchheim, 1864-1866.

——— *Lehrbuch der allgemeinen Metaphysik,* 8. ed., Mainz: Kirchheim, 1912.

Suarez, Franciscus, *Omnia Opera,* 32 vols., *Disputationes Metaphysicae,* vols. XXV-XXVI, Paris: Vivès, 1866.

Sullivan, James B., *First Principles in Thought and Being,* Catholic University of America Philosophical Studies, Washington, D. C.: The Catholic University Press, 1939.

Sylvestris, Franciscus de (Ferrariensis), *Commentaria in Libros Quatuor Contra Gentiles S. Thomae de Aquino,* 4 vols., ed. Joachim Sestili, Rome: Orphanotrophium a S. Hieronymo Ameliaini, 1897-1900.

Taylor, A. E., *Aristotle on His Predecessors,* Chicago: Open Court Publishing Co., 1907.

Taylor, Henry Osborn, *The Medieval Mind,* 2 vols., London: McMillan & Co., 1911.

Thorndike, Lynn, *A History of Magic and Experimental Science,* 4 vols., 2. ed., New York: McMillan Co., 1929.

Ueberwegs, Friedrich, *Grundriss der Geschichte der Philosophie,* Teil II, *Die mittlere oder die patristiche und scholastiche zeit,* Berlin: Mittler und Sohn, 1905.

Werner, Carl, *Der hl. Thomas von Aquino,* 3 vols., Regensburg: Manz, 1889.

——— Charles, *Aristote et l'Idéalisme Platonicien,* Paris: Felix Alcan, 1910.

Windelband, Wilhelm, and Hermsoeth, Hering, *Lehrbuch der Geschichte der Philosophie,* Tübingen, 1935.

Wulf, Maurice de, *History of Mediaeval Philosophy, trans.* E. Messenger, 2 vols., London: Longmans Green & Co., 1935-1938.

——— Theodor, S.J., *Modern Physics,* trans. from 2. German edition by C. J. Smith, New York: E. P. Dutton & Co., Inc., 1929.

Zeller, Edward, *Die Philosophie der Griechen,* Teil II, Abth. 1 & 2, Leipzig: Fues's Verlag, 1889.

——— *Aristotle and the Earlier Peripatetics,* trans. B. F. C. Costelloe and J. H. Muirhead, London: Longmans Green & Co., 1879.

——— *Zeller's Plato and the Older Academy,* trans. S. F. Alleyne and A. Goodwin, London: Longmans Green & Co., 1888.

Zigliara, P. F. Thomas Maria, *Summa Philosophica,* XVII ed., 3 vols. Lyons: V. Briday, 1877.

Selected Articles

Amerio, Franco, "La Formulazione del Phincipio di Causalità et la Nozione di Causa in S. Thomas", in *Revista di Filosofia Neo-Scholastica,* XXIX (1937), pp. 388-400.

——— "Il Principio della causalità nella Gnoseologica di San Tomaso", *Revista di Filosofia Neo-Scholastica,* XXX (1938).

Fabro, Cornelio, "L'origine psicologica della nozione di causa", *Revista di Filosofia Neo-Scholastica,* XXIX (1937), pp. 207-245.

———. "La Difesa Critica del Principio di causa", *Revista di Filosofia Neo-Scholastica,* XXX (1938).

——— "Intorno alla nozione 'Thomista' di contingenza", *Revista di Filosofia Neo-Scholastica,* XXX (1938).

Garrigou-Lagrange, Reginald, "Prédétermination non nécessitante", *Revue de Philosophie,* XXXIII (1926), 379-399; 423-433; 659-670.

——— "Prémotion Physique", *Dictionnaire de Théologie Catholique,* ed. Vacant, Mangenot et Amann, Paris: Letouzey et Ane, XIII, 1936.

——— "Dieu", *Dictionnaire Apologetique de Foi Catholique.*

Gilson, Etienne, "Pourquoi Saint Thomas a critiqué Saint Augustin", *Archives d' histoire doctrinale et littéraire du Moyen Âge,* dirigées par E. Gilson et G. Thèry, Paris: Vivès, vol. I, (1926-1927).

Jolivet, R., "Aristote et la notion de creation", *Revue des Sciences Philosophiques et Théologiques,* XIX (1930), 5-50; 209-235.

Laminne, J., "Le Principe de contradiction et le Principe de causalité", *Revue Neo-Scholastique,* XIX (1912), 453-488.

Lindsay, J., "Plato and Aristotle on the Problem of Efficient Causation", *Archiv für Geschichte der Philosophie,* XII (1906).

Masnovo, "Intorno al principio di causalità", *Revista di Filosofia Neo-Scholastica,* XXXIII (1931), 530-533.

McDonald, D. B., "al-Ghazālī", *Encyclopedie de l'Islam,* publié par M. T. Houtsma, A. J. Wensinck, E. Levi, et al., vol. II.

Meyer, Hans, "Thomas von Aquin als Interpret der aristotelischen Gotteslehre", *Beiträge zur Geschichte der Philosophie und Theologie des Mittelalters,* Supplementband III, pp. 682-687.

Richard, D., "La Causalité instrumentale, physique, morale, intentionelle", *Revue Neo-Scholastique,* XVI (1909).

Robin, Léon, "La Theorie Aristotelicienne de la causalité", *Archiv für Geschichte der Philosophie,* XXIII (1910), 1-28; 184-210.

Roland-Gosselin, M.D., "De Distinctione inter essentiam et esse apud Avicennam et D. Thomam", *Xenia Thomastica,* Rome: In Pont. Colleg. Angelico, III (1925), 281-288.

Salman, D., O.P., "Algazel et les Latins", *Archives d' histoire doctrinale et littéraire du Moyen Âge,* dirigées par E. Gilson et G. Thèry, Paris: Vrin, X (1935) ; XI (1936).

Simonin, H. D., "La Noton d' 'Intentio' ", *Revue des Sciences Philosophiques et Théologiques,* XIX (1930).

Stein, Ludwig, "Antike und mittelalterische Vorläufer des Occasionalismus", *Archiv für Geschichte der Philosophie,* Berlin: George Reimer, II (1889), 193-245.

Van Steenberghen, Ferdinand, "La composition constitutive de l' être fini", *Revue Néo-Scholastique,* XLI (1938).

Dictionaries and Lexicons

Dictionary of Philosophy and Psychology, Baldwin ed., New York, 1931.

Dictionnaire de Philosophie et de Théologie Scholastique, J. P. Migne, ed., Paris: Ateliers Catholiques, 1856.

Dictionnaire de Théologie Catholique, Paris: Vacant et Mangenot, 1910.

Wörterbuch der philosophischen Begriffe, Rudolph Eisler ed., 4. ed., 3 vols., Berlin: Mittler und Sohn, 1927-1930.

Wörterbuch der Philosophie, Fritz Mauthner ed., Leipzig: Felix Meiner, 1923.

Lexicon Peripateticum Philosophico-Theologicum, Nuntio Signoriello, Naples: Bibliotheca Catholica Scriptorum, 1906.

Thomas-Lexikon, Ludwig Schültz, Paderborn: Ferdinand Schoningh, 1895.

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